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# REPORT
## OF
# METROPOLITAN PARK COMMISSION

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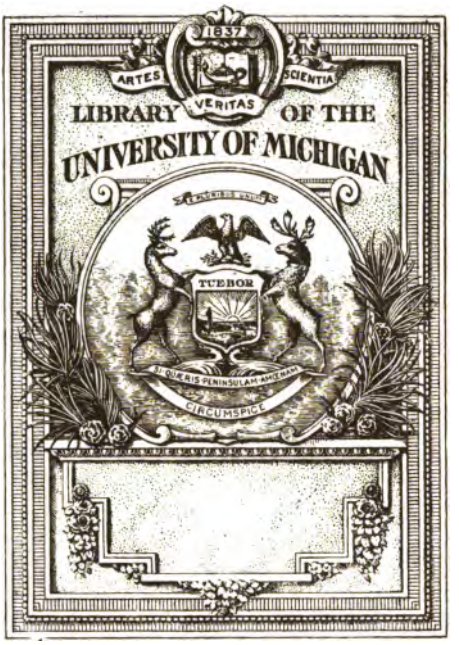
## 1917

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**Public Document** **No. 48**

# REPORT

OF THE

# BOARD OF METROPOLITAN PARK COMMISSIONERS.

DECEMBER, 1917.

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# OFFICERS.

**COMMISSIONERS.**

WILLIAM B. DE LAS CASAS, *Chairman.*

EDWIN U. CURTIS.

EVERETT C. BENTON.

ELLERTON P. WHITNEY.

CHARLES J. BARTON.

**SECRETARY.**

GEORGE LYMAN ROGERS.

**ASSISTANT SECRETARY.**

WILLIAM H. GOWELL.

**ENGINEER.**

JOHN R. RABLIN.

OFFICES, 18 Tremont Street, Boston, Mass.

# The Commonwealth of Massachusetts.

## REPORT.

The Metropolitan Park Commission presents herewith its twenty-fifth annual report.

The year 1916–17 covered by this report has been one of unusual quiet if measured by new acquirements of land and new construction, but a very busy one in other ways, and marked by events which make it a notable one in the history of the Board.

After a busy life of accomplishment for eighteen years in offices in the Congregational Building, 14 Beacon Street, the Board found itself obliged to seek new offices because its former quarters were required for their own use by those having charge of the many activities of the American Congregational Association. No offices were available in the State House, but after a thorough canvass of available locations, a suite of offices reasonably adapted to its work was secured in the Kimball Building, at 18 Tremont Street, and the Board removed to them just before the 1st of January. The change was accomplished with practically no interruption of business.

Very few acquirements of land have been made. Slight changes have been made by exchange and acquirement in the southwesterly boundary of Middlesex Fells Division, which makes it possible to connect the South Border Road with the West Border Road by a new piece of road 1,400 feet in length, and so have a continuous border driveway connecting the westerly branch of Middlesex Fells Parkway with Mystic Valley Parkway. Land has also been acquired in Arlington at the point where the highway between Medford and Arlington crosses Mystic Valley Parkway. This acquirement, though small, is very important, as it makes it possible to preserve an

openness at this point necessary for public safety and the attractiveness of the surroundings of the Parkway. It will also make possible a needed widening of the highway, and leave room enough for the location of a small service building to replace the one which it has been necessary to tear down on the opposite side of the highway to make way for connection with the new driveway along the southerly border of Mystic Lake to Mystic Street, where connection is made with Summer Street and the State highway beyond to Lexington and Concord. These improvements will make a continuous parkway and State highway connection by way of Wayland and Sudbury to the State highway to Worcester and New York, and by Concord with the State highway to Groton and Ayer. The section of the highway along Mystic Lake was partly completed, and it is hoped that it may be fully completed to a sufficient width during the coming year. The bridge across Charles River known as Weston Bridge, from Commonwealth Avenue in Newton to South Street in Weston, was completed under authority of chapter 368 of the Special Acts of 1915, and turned over to the city of Newton and town of Weston to maintain. It is a handsome, reinforced concrete structure, replacing the narrow, stone-filled bridge, and forms part of the main State highway to Worcester and New York. It is of unique design in that it provides an ample width of roadway by overhanging sidewalks and short, supporting arches, which make the river passage for canoes and boats safer than if the arches were as long as the width of the top structure. This bridge greatly facilitates the convenience of those on the river, and reduces danger of accident on the highway at a point where large automobile travel came at times into conflict with many people who were crowded upon the bridge to look at the canoeing or listen to band concerts being given in the neighboring grove.

North Beacon Street Bridge, between Boston and Watertown, and its approaches, opposite the entrance to the United States Arsenal Grounds, has been completed and turned over to the city of Boston and town of Watertown to care for. A public boat landing has been built on the Boston side of the river close by the bridge. North Beacon Street, from the bridge to School Street in Watertown, is being rebuilt by the town with

improved alignment and increased width, which will make it a much improved connection between the new driveway passing the Arsenal Grounds and the driveway from School Street to the center of Watertown, as well as a greatly improved highway between Boston and Watertown and beyond. The driveway along the Arsenal Grounds has been closed, and will probably remain closed during the period of the war by requirement of the War Department, such right having been reserved by the government when it transferred the land on which the driveway is built to the care of this Board.

It is with regret that the Board is obliged to report further delays and complications in regard to the rebuilding of Neponset Bridge. This bridge was first required to be built by this Board under chapter 300 of the General Acts of 1915. While no time limit was placed in the act, yet the work of construction would have naturally gone forward immediately except for the fact that it was discovered that there were encroachments on the highway approaches. It required some time to secure the removal of these encroaching buildings, and when this was accomplished, the increased cost of construction proved to be in excess of the appropriation available. This fact being reported to the Legislature, the appropriation was increased by a further appropriation of $450,000, under chapter 220 of the General Acts of 1917. New bids were at once asked for, but owing to still rapidly rising prices caused by entering into the war, the bids when received were again in excess of the two appropriations. As the old bridge was in need of excessive repairs, which this Board had no authority to make, and which it seemed unnecessary to leave for the cities of Boston and Quincy to make as a matter of necessity, the Board decided to proceed at once to build the temporary bridge which would have to be built in any event for use during construction of the new bridge. Bids were asked for this work, but they seemed to be unnecessarily high and to be influenced no doubt by fear of still further changes in the cost of labor and materials. The Board therefore decided to build the temporary bridge by direct purchases and employment of labor and machinery under supervision of its Engineer. Contracts for lumber, however, have been slow in delivery, and the contract for piles wholly failed after a part

of the bridge was built because the United States government had begun construction of a bridge a little farther downstream to connect with the destroyer plant at Squantum, under rush orders and consequently at prices which made it impossible for this Board, working under a limited appropriation, to obtain labor and piles at normal prices, and to a certain extent at any price. The building of the temporary bridge has, therefore, been prolonged, and it has even been necessary, in order to have construction go forward at all, to cut the longer piles in the Blue Hills Division. This construction will now go on more rapidly it is hoped and be completed in the spring. It will answer for the present, and the time of building the permanent bridge may wait upon the outcome of present uncertainties as to prices and other war conditions. In the meantime the whole matter will be restudied and re-estimated, so that if it is impossible to go on with the construction or completion of the permanent bridge under present appropriations, the matter may be brought before the Legislature for further action.

It is interesting to note that in spite of the general unrest occasioned by war conditions and a fear early in the season which made people turn away from renting houses and planning for vacations at the seashore, there was an unprecedented rush during the summer to the beaches in the care of this Board. The bath-houses at Nahant, Revere and Nantasket were used more largely than ever before, and amusements and stores in the neighborhood of all the beaches appeared to do a larger business than ever before, and even where there were no such attractions, as at Quincy, Winthrop and Lynn Shore, there was a similar increase. At the band concerts and at the picnic grounds, and generally through the woods reservations, there were more seeking the rest and recreation of the reservations than in previous years. This was particularly true at the Sheepfold playground in Middlesex Fells, which is on the direct line of electric cars from Boston and many other cities and towns of the District. This indicates even more than usually a necessity for such enlargements and alterations for public convenience as the Board has previously recommended, but in view of the high cost of construction, and the probability of greatly increased cost of more lands, the Board believes that it

will be better for the present that large expenditures be postponed and an effort made to get along with present accommodations even though such postponement is an inconvenience to the public. Slight changes may be made, especially at the Revere bath-house, which will considerably increase and improve present accommodations, and these changes are now under way.

The same reasons cause the Board to refrain from recommending acquirements or improvements or increased expenditures, in any direction, which require for their accomplishment increased or new appropriations. The Board asks only for such increases as the increased cost of labor and supplies make necessary to provide if the service and care of previous years are to be continued. It is hoped that no decrease in maintenance appropriations will be made, as such a decrease would lessen the ability of the Board to continue the recreative usefulness of the reservations and parkways, and its protection of the public in such uses. The increased strain upon our people due to war conditions makes it imperative that there be the greatest possible effort to maintain all present opportunities for rational outdoor rest and recreation.

High prices and apprehension as to shortage of food and fodder led the Board to make an effort to become a producer of such articles, especially of those consumed upon the reservations, and by setting off small parcels of land for cultivation by those private citizens who desired to carry on such cultivation. Available lands were put under cultivation generally for grain and root crops, and to a limited extent for food crops. In spite of the adverse conditions of the land, it having been previously uncultivated for many years, and having to be prepared by spring ploughing, a very gratifying first year result was secured. At Middlesex Fells root crops for the animal collection and for the forces employed on the Reservation, and carrots sufficient not only for this Reservation but in large part for the other reservations, were produced. These crops were of better quality than what have been otherwise obtained. A large quantity of corn was raised at Blue Hills, but here and at all the reservations it suffered from an early frost. Other crops were raised in small quantities rather for experience and in case of a greater

need in coming years than for the crop expected in the present year. At Blue Hills potatoes, carrots, turnips and corn were raised. Of these, many bushels of potatoes were sold to the employees subject to equitable limitations as to the amount to be purchased. At Charles River Upper Division a considerable acreage was under cultivation for much the same crops. The hay crop was largest, and this was baled and so far as not needed at this Reservation was sent to other reservations. It seems quite probable that soon the hay and some of the root and grain crops for all the reservations may be raised, and that it will be advisable to raise them to the extent possible, so long as present uncertainties as to prices and supplies continue.

In view of present conditions, the Board has presented no bills for appropriations for new work or recommending immediate consideration of new acquirements or construction except as such recommendation seems of necessity incident to special work required to be done by the Board or by special reports required to be made to the Legislature of 1918.

The Board has found itself greatly embarrassed in the matter of carrying out the requirements of the statutes relating to the care and maintenance of channels to and in Broad and Lechmere canals, Charles River Basin. Section 7 of chapter 465 of the Acts of 1903, as amended by Acts of 1909, chapter 524, and Acts of 1910, chapter 582, section 2, requires the Board to maintain these channels and canals at a depth prescribed in the act and free from ice in winter. For this purpose the Board for several years estimated the probable cost of such work, and included the same in its estimates for the maintenance appropriations for the ensuing year; and, to carry out the purposes of this act, contracted for such machinery, tugboats and labor as the circumstances each year seemed to require; but owing to the increasing difficulty in obtaining tugboats, and particularly in the cost of the same, special legislation was asked of the Legislature of 1917 to enable the Board to buy and operate a tugboat to do this work required by the statute. Although the Board furnished estimates of cost of purchase and operation which seemed to it to indicate a financial as well as practical advantage, the legislation was refused. Prices have since increased, and the difficulties of hiring a tugboat have multiplied,

owing to the taking over of many boats by the United States government. For the winter of 1917 and 1918 it seemed for a long time as if, in spite of advertising and soliciting, no tugboat suitable for ice-breaking could be obtained. Finally, however, a boat was secured at a price greatly in excess of the prices of previous years and the estimated appropriation for the year. The Board asks that provision be made for the excess in cost of maintaining this tugboat over the estimate submitted in October, and renews its request for authority to buy and operate a tugboat.

The Board also asks for perfecting legislation to complete its authority to expend such money as may be necessary from time to time to maintain the channels and canals at all times at the depths required by law. The amount of money required for this purpose, as stated in the special report, is at the present time $15,000.

Chapter 699 of 1912 provided an appropriation to become available at the rate of $200,000 in each of five years beginning with 1912 for acquirements and construction specified in the act. Report has been made from time to time as to the work done each year under this act, and now that the five years have passed, a brief summary of what has been done seems appropriate, especially as the act provided that after the expiration of the five years the unexpended balance should be expended under the general parkway acts.

In a preliminary way it may be said that there were eleven projects mentioned in the act for which the money was to be used. In every case the amount thus stated was less than the estimates of its probable cost which had been previously made by this Board. As a result the accomplishment of the various projects has been a matter which has required careful study and some modification from original plans and estimates or only partial accomplishment. Land for Woburn Parkway was acquired and construction completed from Pond Street in Winchester to Pleasant Street in Woburn, a main street near the center of Woburn.

Land for a parkway along the northerly side of Lake Quannapowitt in Wakefield has been acquired, with only one claim remaining unsettled. Construction also was authorized by the

act, but it has been impossible because the appropriation above the cost of the land is insufficient. It will probably be unwise to attempt construction in any form until a further appropriation of $25,000 is made. Unlike most appropriations the one for this project will remain untouched until the close of the year 1920. The driveway along Mystic River has been extended from Main Street, Medford, to Mystic Avenue, a main highway giving present connection with Middlesex Fells Parkway and by that parkway with Revere Beach Parkway. This connection will serve all present needs, although somewhat roundabout. In time it is hoped that a more direct connection will be made as planned, crossing river and marshes to a direct connection with Revere Beach Parkway. Furnace Brook Parkway from Hancock Street to Quincy Shore has been built to subgrade, with roadway, planting spaces and sidewalk. This construction gives a much more convenient approach from Quincy to the Reservation than has heretofore existed. It is hoped that funds to provide for hard surfacing of the roadway and loaming of grass spaces and tree pits and setting out of trees will be authorized as soon as present unfavorable conditions will permit. In this connection it seems advisable to call attention to the fact that the driveway along Quincy Shore was built for economy's sake for only a part of its ultimate width, but upon lines which will permit the fuller width of construction. At first this driveway was used almost exclusively by the people of Quincy, but it has gradually come into a much broader use, and is becoming so crowded at times as to be dangerous. As soon as possible it will be advisable to increase the width of both roadway and sidewalk by further construction. Hammond Pond woods, between Boylston Street and Chestnut Hill, and wooded lands south from Boylston Street to Hammond Street have been acquired on lines which provided for their use for roadways as part of the parkway proposed from West Roxbury Parkway to Charles River. It is desirable that the land for the rest of this parkway be acquired as soon as conditions will permit, as some of it is already being cut up into house lots. The land for Dedham Parkway was acquired to the extent of the funds appropriated, leaving a small amount of parkway to be acquired at the Dedham end to complete holdings necessary for this

parkway. The subgrading necessary for the parkway roadway alone has been done, and the project awaits for its completion a further appropriation for the finished grading. Land has been acquired at Winthrop Shore for a driveway and protecting wall along the upland, and a driveway along Short Beach at prices but little above the assessed values. Approximately $30,000 more will be needed to acquire the entire water front to the end of Short Beach. Extension of Fresh Pond Parkway into the Cambridge Water Reservation at Fresh Pond and a new bridge over the Watertown Branch have been impossible because the appropriation made had contemplated the contribution of the land by the city of Cambridge, and this has since been refused by the city authorities. If the project is revived it would be necessary to appropriate a larger sum of money even if the land should be given, as the cost of construction will exceed the amount of the appropriation as originally made. The Border Road to Fellsmere Park, forming the west branch of Middlesex Fells Parkway, has been completed. Land for Old Colony Parkway from Columbia Road to Neponset Bridge, for which almost half of the total appropriation of the act was made, has been acquired and a considerable part of the claims adjusted, and a part of the subgrading made at low cost from filling furnished by the Boston Development and Sanitary Company. Improvements at Dorchester Lower Mills, authorized by the act, have been carried out so far as they proved to be feasible.

It is not extravagant to say that so much has been accomplished under the provisions of chapter 699 of 1912 that it suggests a continuation of this method of making appropriations for completion of the projects referred to in the act, and all other desired projects when conditions will permit. Wherever construction has been completed it has come into a considerable immediate use, and is already exerting a strong influence for improvement in the development of surrounding lands. Other projects which deserve early consideration are the extension of Lynn Fells Parkway towards Lynn Woods, the acquirement of lands at least for a parkway from Middlesex Fells to Lake Quannapowitt through Stoneham and Wakefield, the connection between Mystic Valley Parkway and Woburn Parkway,

the driveways along Charles River, the connection of the already constructed portions of Furnace Brook Parkway, widening Quincy Shore Driveway, and acquirement of land for extension toward Fore River and the highways leading to the South Shore. All of these will be a great convenience and of importance in making the parkways and driveways already constructed of still greater benefit to the district and State at large. So much has already been done, and the Metropolitan District has gained such a reputation for intelligent and attractive development by means of these parkways and driveways, that however much present conditions may require a temporary postponement, they ought not to be marred by hesitation or limited by a failure to carry the Metropolitan Park System to a logical completion.

In matters of maintenance and minor improvement, much has been accomplished during the past year. In the Blue Hills effective work against the gypsy moth has been done under the customary appropriation, added to by a special appropriation of $43,000 made in 1917. In Middlesex Fells and Blue Hills the highways and border roads and some of the woods roads have been improved and somewhat extended as an aid to all development. Intelligent forestry work has been carried on, and the wood cut in the process has been eagerly sought for at good prices in this time of fuel shortage.

Alewife Brook Parkway was left in an unsatisfactory stage of completion owing to an inadequate appropriation. Much has been done under the maintenance of the past year to lessen this incompleteness, and it is hoped that with the usual appropriation it will be advanced each year to gradual completion. Connection has been made with Mystic Valley Driveway, under the supervision of this Board, by a transfer to it of a portion of Powder House Boulevard in Somerville, and it is hoped that this will be put in improved condition during the coming year. A portion of the low lands which were formerly salt marsh along Mystic River Driveway has been turned over and freshened by cultivation to a point where it is well advanced toward becoming attractive grass land. The driveway being built upon the marsh had settled more or less, and has been to a considerable extent resurfaced and will be gradually completed in com-

ing years. Slight improvements have been made at the Riverside Recreation Grounds on Charles River, and a gratifying increase in use of buildings, ball fields and other recreation facilities has followed. In Middlesex Fells the use of the Sheepfold Recreation Grounds has so greatly increased as to cause some fear in the minds of those having the care of the near-by Winchester Water Reservoirs as to the effect on the water in these reservoirs. Effort is being made to direct the public away from the playgrounds on the reservoirs to the lands outside their watershed, and it is believed that with the work now being done and to be continued during the coming years all danger of pollution of the reservoirs will be removed. As this area is the only one in Middlesex Fells suited for a great playground, it would be a great misfortune if it should become necessary to give up or seriously curtail its use as a play field and picnic ground. The filled area between Nahant Bath-house and Lynn Harbor has been loamed and will soon be available as a playground. A piece of sea wall along Lynn Shore, built before it came into the care of this Board, has been rebuilt. It has not been possible, however, to build the comfort station at Lynn Shore, for which $5,000 was made available under chapter 106 of the General Acts of 1916, and the appropriation has now lapsed and is no longer available. The widening of Otter Street as an improvement in approach to the Embankment has been completed. An enlargement of the lock building at Charles River Dam to provide for a mortuary has been built. The stable at the Cambridge side of the dam has been altered to provide better accommodations for the horses and supplies. A bad settlement had showed itself in the stable yard, and this has been repaved. Settlements in the walks have been repaired by rebuilding. A pleasure house for skaters has been provided, to be put up and taken away each winter. A new comfort station of attractive and permanent concrete construction has been built at Nantasket, and many minor improvements have been made in the other buildings, all of which have been paid for out of the rentals received from the buildings, and as part of a consistent improvement being carried on out of these rentals, without further tax upon the District, to adapt them for the greatly increased use of the Reservation. The buildings and beach and roadway have been maintained in

better condition during the past year than ever before. Band concerts have been given at more places than ever before, and everywhere the attendance has increased and great appreciation has been manifested.

By chapter 235 of the General Acts of 1916 an appropriation of $10,000 was made to provide for the taking of West Street in Braintree, as an approach from Braintree and highways from the southern part of the District to the southeasterly side of Blue Hills Reservation. Careful surveys and studies for this improvement have been made, but it has not been found possible thus far to do more. There is some reason to believe, however, that the land may be secured without cost, and if this is accomplished, it may be possible to make such improvement in West Street as to warrant its being taken over or improved and left temporarily in the care of the town until such time as the limited appropriations will permit its completion.

During the past year necessary investigations have been made for special reports as follows: In conjunction with the Commissioner of Public Health as to the improvement of the condition of Aberjona River and Mystic Lake; as to the rebuilding of bridges over Charles River; as to the completion of Furnace Brook Parkway; and as to the dredging and rebuilding of the walls and wharves of Broad and Lechmere canals from Charles River Basin.

It seems proper to note here with pride that forty-one in the office, police and laboring forces under this Board have gone into various branches of the army and navy for the present war. The death of a former member of this Board, Col. Thomas L. Livermore, has occurred. He served but a brief time with this Board, but during that time gave freely of his great ability and ripe experience.

The usual accompanying reports of the Secretary and Engineer, with financial statement, are transmitted herewith.

All of which is respectfully submitted.

WILLIAM B. DE LAS CASAS,
EDWIN U. CURTIS,
ELLERTON P. WHITNEY,
EVERETT C. BENTON,
CHARLES J. BARTON,
*Metropolitan Park Commission.*

DECEMBER, 1917.

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# REPORT OF THE SECRETARY.

Hon. WILLIAM B. DE LAS CASAS, *Chairman, Metropolitan Park Commission.*

SIR: — I submit herewith the annual report of the Secretary for the year ending Nov. 30, 1917.

## 1. ACQUIREMENT OF LANDS.

Acquirements of new lands, either by takings or purchase, have been very small the past year. Exchanges of less than 2,000 square feet in each case have been made with two owners of land abutting on South Border Road, Middlesex Fells, in order to make possible the extension of the road.

There are 76 unsettled claims for lands taken, which it is estimated will require about $84,000 to settle. Of these claims, about 20 are in suit, consisting principally of suits for takings in Boston for Old Colony Parkway.

## 2. GENERAL ADMINISTRATION AND SUPERINTENDENCE.

The more important features of work in the various divisions, taken from reports of the superintendents, are as follows: —

### *Revere Beach Division.*

The Revere Beach Bath-house was opened on June 16 and was closed September 16, a period of 93 days. The total number of bathers was 208,693, of whom 126,665 were male and 82,028 female bathers. The gross receipts were $42,790.05. In point of patronage this was the most successful season the bath-house has had. The same is true of the Nahant and Nantasket Beach Bath-houses. The result is due largely, judging from experience of past years, to the fact that the average of fair days was unusually favorable, and that the bathing was not congested in a comparatively few very warm days.

The Nahant Beach Bath-house opened June 30 and closed September 9, a period of 72 days. The total number of bathers was 54,251, consisting of 29,706 male and 24,545 female bathers. The gross receipts were $10,494.80.

*Charles River Division, Lower Basin.*

The following sporting events took place on the Basin during the year: —

April 4. Rowing races.
April 21. Technology rowing races.
May 3. High school rowing races.
May 11. Brown and Nichols and Boston College rowing races.
May 17. Boston College class rowing races.
May 17. Noble and Greenough class rowing races.
May 23. Interscholastic Rowing Association regatta.
May 23. Noble and Greenough class rowing races.
May 25. Interscholastic Rowing Association regatta.
July 4. New England Amateur Rowing Association regatta.
City of Boston swimming races.
September 3. New England Amateur rowing regatta.
September 8. New England Amateur Association swimming regatta.
September 15. "Boston American" annual girls' swimming races.
October 1. Harvard class races.
October 2. Harvard class races.
October 3. Harvard class races.
October 5. Harvard class races.
October 29. Harvard class races.
November 3. Technology rowing races.
November 13. Harvard class races.

*Charles River, Upper Division.*

Considerable repairs have been made in the buildings and property at Riverside Recreation Grounds, and much more needs to be done. During the year the Recreation Grounds have been let to 12 large parties, consisting of 250 or more persons, for outings, one day to each party, with a total attendance of 8,250 people. For this use a minimum charge of $50 was made to each party, as has been customary at these grounds for some years past. On other days throughout the season the grounds were extensively used by the public for picnic parties and recreation purposes. Both Beaver Brook

Reservation and the Charles River, particularly at Forest Grove and Hemlock Gorge, were resorted to for picnic parties extensively during the year. As a part of the food production plan inaugurated by the Board last spring, a portion of Charles River Reservation, between Quinobequin Road and the river, was seeded with potatoes, beans, corn, oats and rye. Owing to the early frost, however, the crops of beans and corn were greatly damaged, as was the case with the same kind of crops in other divisions.

*Middlesex Fells Division.*

The public use of the Recreation Field, in the Sheepfold section, has greatly increased during the year. As much work as possible has been done to improve the grounds for public use, including a new parking space for automobiles, an additional ball field, a path to Dark Hollow Pond and another path leading toward Bear Hill Tower. In addition to raising all the hay, straw, cabbages and green vegetables required for feed in the stable and in the animal collection, beans, oats, feed corn and a large crop of carrots were raised. The surplus carrots have been distributed for use in the various divisions, and the surplus of other crops, which cannot be used in Middlesex Fells Division, sold to the best advantage of the Commonwealth. The crop of beans and corn suffered as elsewhere from the early frost. A large amount of work has been done in repairing and relaying underdrains in Middlesex Fells Parkway near Second Street, and a large section of the drainage system in this parkway must be reconstructed in the near future.

*Blue Hills Division.*

Considerable cutting has been done of chestnut trees affected by the chestnut tree blight, and in thinning out growth to facilitate moth work. Two hundred and fifty thousand white pine seedlings have been set out for the purpose of reforestation. About 278 bushels of marketable potatoes were raised on ground near Hoosicwhisick Pond. A larger part of these were sold in small quantities to laborers and employees. About 5 acres of ground was also planted with corn, but this crop was likewise damaged by the early frost. Nine hundred and thirty bushels of turnips and 100 bushels of carrots were also harvested.

*Nantasket Beach Division.*

The new sanitary and comfort station for women on the westerly side of Nantasket Avenue, a short distance south of Wharf Avenue, so called, has been completed and opened for use.

The bath-house was opened June 30 and closed September 9. There were 48,196 male bathers and 44,901 female bathers, making a total of 93,097 bathers altogether. The gross receipts were $19,969.05.

*Band Concerts, 1917.*

| | |
|---|---|
| Revere Beach (afternoons and evenings of every day except Mondays, beginning July 1 to and including Labor Day), | 112 |
| Nahant Beach (Friday afternoons and evenings, July 6, 13, 20, 27, August 3, 10, 17, 24, 31, September 1; Sunday afternoons, July 8, 22, August 5, 19), | 24 |
| Nantasket Beach (afternoons and evenings of every day except Mondays, beginning July 1 to and including Labor Day), | 112 |
| Foot of Great Blue Hill, | 7 |
| Fellsmere Park, Malden, | 4 |
| Sheepfold, Middlesex Fells, | 8 |
| Manchester Field, Winchester, | 4 |
| Broadway Park, Somerville, | 5 |
| West Somerville Playground, | 2 |
| Speedway, Brighton, | 5 |
| Charles River Road, Watertown, | 3 |
| Fox Island, Waltham, | 3 |
| Riverside Recreation Grounds, | 7 |
| Weston Bridge, | 4 |
| Boston Embankment, | 10 |
| Chelsea Playground, | 3 |
| Ell Pond Park, Melrose, | 4 |
| Quincy Shore Reservation, | 3 |
| Furnace Brook Parkway, | 1 |
| Mystic Valley Parkway, | 2 |
| Wakefield, | 3 |
| Woburn Parkway, | 3 |
| Stony Brook Reservation, | 1 |
| Winthrop Shore Reservation, | 2 |
| Lowell Memorial Park, | 3 |
| Beaver Brook Reservation, | 2 |
| Total, | 337 |

The Legislature of 1917 directed the following reports to be made: —

Chapter 45 of the Resolves of 1917 requires the Metropolitan Park Commission and the Commissioner of Health to investigate the subject of protecting the banks of the Mystic Lakes in the city of Medford and the towns of Arlington and Winchester, protecting and purifying the water supply of said lakes, facilitating the public use of said lakes, and preventing the pollution thereof and of their sources and tributaries. Chapter 79 of the Resolves of 1917 requires the Metropolitan Park Commission to report as to the damage, if any, which resulted to the wharves or walls along Broad or Lechmere canals in the Charles River Basin by reason of the performance by the Charles River Basin Commission of the work required of said Commission by the Charles River Basin Act, and as to the best method and probable cost of repairing such damage if there be any, whether the Commonwealth is liable for the same, and the best and most economical plan for maintaining the water in said canals in channels to the depth prescribed by said act, and the probable annual cost of the same. Chapter 117 requires the Metropolitan Park Commission to investigate the advisability of extending Furnace Brook Parkway from Hancock Street to the westerly side of Adams Street in the city of Quincy, and of resurfacing said Parkway from Hancock Street to the Quincy Shore Reservation. Chapter 119 requires the Metropolitan Park Commission to investigate the condition of the bridges over Charles River within the Metropolitan Parks District, and the necessity or desirability of reconstructing any of them, and to present a plan for the proper distribution and apportionment of the cost of reconstruction and maintenance of all bridges and approaches thereto hereafter to be constructed.

By chapter 65 of the General Acts of 1917, the Commission was directed to compile and print for public distribution the acts and resolves relating to the Commission. This work is under way, and arrangements have already been made with the State printers for printing.

### 3. Finances.

Detailed statements of the receipts and expenditures the past year will be found in the "Financial Statement".

*Loan Appropriations.*

The appropriations heretofore made in the form of loans, with accretions thereto, are as follows: —

METROPOLITAN PARKS LOAN FUND.

| | |
|---|---|
| Original appropriation, chapter 407, Acts of 1893, | $1,000,000 00 |
| General appropriation, chapter 483, Acts of 1894, | 500,000 00 |
| Charles River Act, chapter 509, Acts of 1894, | 300,000 00 |
| General appropriation, chapter 305, Acts of 1895, | 500,000 00 |
| General appropriation, chapter 466, Acts of 1896, | 1,000,000 00 |
| General appropriation, chapter 464, Acts of 1897, | 500,000 00 |
| General appropriation, chapter 530, Acts of 1898, | 1,000,000 00 |
| Revere Beach Bath-house Act, chapter 142, Acts of 1899, | 125,000 00 |
| General appropriation, chapter 406, Acts of 1899, | 300,000 00 |
| Charles River Improvement Act, chapter 465, Acts of 1900, | 50,000 00 |
| Fuller's Wharf Act, chapter 467, Acts of 1900, | 30,000 00 |
| General appropriation, chapter 445, Acts of 1901, | 450,000 00 |
| Mystic River Bridge Act, chapter 492, Acts of 1901, | 200,000 00 |
| General appropriation, chapter 290, Acts of 1903, | 125,000 00 |
| Newton Upper Falls Bridge Act, chapter 391, Acts of 1903, | 40,000 00 |
| Continuing appropriation, chapter 429, Acts of 1903, | 1,500,000 00 |
| Nahant Beach Bath-house Act, chapter 326, Acts of 1904, | 70,000 00 |
| Reimbursing loan for moth expense, chapter 486, Acts of 1906, | 50,000 00 |
| Purification of Mystic River, Alewife Brook and adjacent water-courses, ponds and drainage areas, chapter 529, Acts of 1906, | 100,000 00 |
| Additional appropriation for purification of Mystic River, etc., chapter 529, Acts of 1907, | 25,000 00 |
| Mystic River and Winthrop Shore Act, chapter 652, Acts of 1908, | 70,000 00 |
| Charles River Land Act, chapter 628, Acts of 1910, and chapter 439, Acts of 1911, | 99,554 95 |
| Alewife Brook Purification Act, chapter 458, Acts of 1911, | 15,000 00 |
| Work for unemployed, chapter 4, General Acts of 1915, | 50,000 00 |
| Weston Bridge Act, chapter 368, Special Acts of 1915, | 50,000 00 |
| | $8,149,554 95 |
| To provide for interest and sinking fund requirements to 1900, chapter 311, Acts of 1897, | 900,000 00 |
| Total amount of loans, | $9,049,554 95 |
| Amounts received from sales of buildings, receipts from bath-houses, fines, etc., | 198,942 81 |
| Total, | $9,248,497 76 |

METROPOLITAN PARKS LOAN FUND, SERIES II.

| | |
|---|---|
| Original boulevard, chapter 288, Acts of 1894, | $500,000 00 |
| General appropriation, chapter 472, Acts of 1896, | 500,000 00 |
| General appropriation, chapter 521, Acts of 1897, | 1,000,000 00 |
| Saugus Bridge Act, chapter 547, Acts of 1898, | 100,000 00 |
| General appropriation, chapter 428, Acts of 1899, | 500,000 00 |
| Mattapan Bridge Act, chapter 443, Acts of 1900, | 75,000 00 |
| Winchester Act, chapter 444, Acts of 1900, | 50,000 00 |
| Revere Beach Parkway Act, chapter 445, Acts of 1900, | 200,000 00 |
| General appropriation, chapter 172, Acts of 1902, | 450,000 00 |
| General appropriation, chapter 359, Acts of 1903, | 110,000 00 |
| Continuing appropriation, chapter 419, Acts of 1903, | 1,500,000 00 |
| Alewife Brook and Fresh Pond Parkway Act, chapter 651, Acts of 1908, | 50,000 00 |
| Continuing appropriation, chapter 699, Acts of 1912, | 1,000,000 00 |
| Wellington Bridge Act, chapter 794, Acts of 1914, | 115,000 00 |
| Work for unemployed, chapter 5, Special Acts of 1915, | 50,000 00 |
| Alewife Brook Parkway construction, chapter 243, General Acts of 1915, | 35,000 00 |
| Neponset Bridge Act, chapter 300, General Acts of 1915, | 350,000 00 |
| Wellington Bridge Act, chapter 178, General Acts of 1916, | 11,000 00 |
| Improvement of lands in Arlington, chapter 186, General Acts of 1916, | 20,000 00 |
| Parkway connecting Blue Hills Reservation and Granite Street, Braintree, chapter 235, General Acts of 1916, | 10,000 00 |
| Construction of Dedham Parkway, chapter 237, General Acts of 1916, | 10,000 00 |
| Additional appropriation for Neponset Bridge construction, chapter 220, General Acts of 1917, | 100,000 00 |
| Settlement of claims for land, Furnace Brook Parkway, chapter 316, General Acts of 1917, | 8,000 00 |
| | $6,744,000 00 |
| To provide for interest and sinking fund requirements to 1900, chapter 311, Acts of 1917, | 100,000 00 |
| Total amount of loans, | $6,844,000 00 |
| Receipt from sales, etc., | 29,914 16 |
| Total, | $6,873,914 16 |

NANTASKET BEACH LOAN.

| | |
|---|---|
| Appropriation, chapter 464, Acts of 1899, | $600,000 00 |
| Appropriation, chapter 456, Acts of 1901, | 100,000 00 |
| Total amount of loans, | $700,000 00 |
| Receipts from rents, etc., | 5,881 50 |
| Total, | $705,881 50 |

CHARLES RIVER BASIN LOAN.

| | |
|---|---|
| Bonds issued for 1904, | $250,000 00 |
| Bonds issued for 1905, | 400,000 00 |
| Bonds issued for 1906, | 600,000 00 |
| Bonds issued for 1907, | 1,150,000 00 |
| Bonds issued for 1908, | 400,000 00 |
| Bonds issued for 1909, | 850,000 00 |
| Bonds issued for 1910, | 475,000 00 |
| Bonds issued for 1911, | 300,000 00 |
| Appropriation, chapter 539, Acts of 1913, | 40,000 00 |
| Driveway, Brooks Street to Charlesbank Road, chapter 188, General Acts of 1915, | 35,000 00 |
| Total amount of bonds, | $4,500,000 00 |
| Receipts added to loan, | 9,368 91 |
| Total, | $4,509,368 91 |

*Expenditures from Loans.*

The following tables show the total amount expended in each of the foregoing loans, the total cost of each reservation and parkway to Dec. 1, 1917, and the amount charged by the Auditor's department to meet the sinking fund and interest requirements previous to Jan. 1, 1900. The item of "Miscellaneous" in these tables includes cost of construction of roads, buildings and of all other work of construction, and all other charges against these loans except those for land, general expenses, sinking fund and cost of maintenance required by law to be charged to loans up to 1897. The total charges for maintenance to 1897, general expenses and sinking fund are given separately at the end of the tables. The total amounts charged to those loans are as follows: —

METROPOLITAN PARKS LOAN FUND.

| | |
|---|---|
| Land, | $5,392,798 66 |
| Miscellaneous, including construction of roads, buildings, etc., | 3,394,831 79 |
| General expense, | 163,371 12 |
| Maintenance to Jan. 1, 1897, sinking fund assessments to Jan. 1, 1900, and interest, | 290,326 56 |
| Transfer to Serial Bond Loan, | 3,601 10 |
| | $9,244,929 23 |

METROPOLITAN PARKS LOAN FUND, SERIES II.

| | |
|---|---|
| Land, | $2,180,021 50 |
| Miscellaneous, including construction of roads, buildings, etc., | 3,795,656 79 |
| General expense, | 107,090 19 |
| Sinking fund assessments to Jan. 1, 1900, and one-half interest, | 59,195 89 |
| | $6,141,964 37 |

NANTASKET BEACH LOAN.

| | |
|---|---|
| Land, | $603,329 57 |
| Miscellaneous, including construction of buildings, etc., | 102,551 93 |
| | $705,881 50 |

The amounts expended from these loans for the fiscal year ending Nov. 30, 1917, are stated in tables in the financial statement.

METROPOLITAN PARKS LOAN FUND.

| | | |
|---|---|---|
| Blue Hills Reservation: — | | |
| Land, | $363,357 29 | |
| Miscellaneous, | 307,058 66 | |
| | | $670,415 95 |
| Middlesex Fells Reservation: — | | |
| Land, | $691,162 69 | |
| Miscellaneous, | 294,557 47 | |
| | | 985,720 16 |
| Revere Beach Reservation: — | | |
| Land, | $1,162,947 67 | |
| Miscellaneous, | 800,999 04 | |
| | | 1,963,946 71 |
| Stony Brook Reservation: — | | |
| Land, | $281,243 87 | |
| Miscellaneous, | 76,810 67 | |
| | | 358,054 54 |

| | | |
|---|---|---|
| Beaver Brook Reservation: — | | |
| Land, | $29,819 29 | |
| Miscellaneous, | 24,437 35 | |
| | | $54,256 64 |
| Hemlock Gorge Reservation: — | | |
| Land, | $53,254 00 | |
| Miscellaneous, | 15,543 94 | |
| | | 68,797 94 |
| Charles River Reservation: — | | |
| Land, | $1,569,391 51 | |
| Miscellaneous, | 340,471 43 | |
| | | 1,909,862 94 |
| Neponset River Reservation: — | | |
| Land, | $233,473 04 | |
| Miscellaneous, | 46,418 97 | |
| | | 279,892 01 |
| Mystic River Reservation: — | | |
| Land, | $242,883 21 | |
| Miscellaneous, | 380,815 51 | |
| | | 623,698 72 |
| Lynn Shore Reservation: — | | |
| Land, | $361,199 29 | |
| Miscellaneous, | 243,580 01 | |
| | | 604,779 30 |
| Quincy Shore Reservation: — | | |
| Land, | $73,726 26 | |
| Miscellaneous, | 198,160 63 | |
| | | 271,886 89 |
| Winthrop Shore Reservation: — | | |
| Land, | $51,067 32 | |
| Miscellaneous, | 170,560 99 | |
| | | 221,628 31 |
| Hart's Hill Reservation: — | | |
| Land, | $10,000 00 | |
| Miscellaneous, | 202 35 | |
| | | 10,202 35 |
| King's Beach Reservation: — | | |
| Land, | $24,297 21 | |
| Miscellaneous, | 1,551 63 | |
| | | 25,848 84 |
| West Roxbury Parkway: — | | |
| Land, | $244,976 01 | |
| Miscellaneous, | 8,313 67 | |
| | | 253,289 68 |

| | | |
|---|---|---|
| Wellington Bridge: — | | |
| Miscellaneous, | $185,317 42 | |
| | | $185,317 42 |
| Nahant Beach Bath-house: — | | |
| Miscellaneous, | $67,794 58 | |
| | | 67,794 58 |
| Boylston Street Bridge: — | | |
| Miscellaneous, | $45,838 57 | |
| | | 45,838 57 |
| Alewife Brook Purification: — | | |
| Miscellaneous, | $136,398 90 | |
| | | 136,398 90 |
| Weston Bridge: — | | |
| Miscellaneous, | $50,000 00 | |
| | | 50,000 00 |
| General expense, | | 163,371 12 |
| | | $8,951,001 57 |
| Sinking fund requirements to 1896, | $18,980 18 | |
| Care and maintenance to July 1, 1896, | 85,813 46 | |
| Care and maintenance, July 1, 1896, to Jan. 1, 1897, | 19,604 06 | |
| Sinking fund assessment for 1897, | 63,630 70 | |
| Sinking fund assessment for 1898, | 9,755 55 | |
| Sinking fund assessment for 1899, | 64,224 00 | |
| Interest, | 28,318 61 | |
| Transfer to Serial Bond Loan (unexpended balance Alewife Brook purification appropriation), | 3,601 10 | |
| | | 293,927 66 |
| Total charged to Dec. 1, 1917, | | $9,244,929 23 |
| Balance Dec. 1, 1917, | | 3,568 53 |
| | | $9,248,497 76 |

METROPOLITAN PARKS LOAN FUND, SERIES II.

| | | |
|---|---|---|
| Blue Hills Parkway: — | | |
| Land, | $133,505 02 | |
| Miscellaneous, | 269,513 47 | |
| | | $403,018 49 |
| Middlesex Fells Parkway: — | | |
| Land, | $263,687 60 | |
| Miscellaneous, | 613,667 39 | |
| | | 877,354 99 |
| Mystic Valley Parkway: — | | |
| Land, | $203,990 91 | |
| Miscellaneous, | 404,813 44 | |
| | | 608,804 35 |

| | | |
|---|---|---|
| Revere Beach Parkway: — | | |
| Land, | $537,445 51 | |
| Miscellaneous, | 869,565 65 | |
| | | $1,407,011 16 |
| Neponset River Parkway: — | | |
| Land, | $83,941 75 | |
| Miscellaneous, | 36,100 54 | |
| | | 120,042 29 |
| Fresh Pond Parkway: — | | |
| Land, | $44,086 25 | |
| Miscellaneous, | 31,635 58 | |
| | | 75,721 83 |
| Furnace Brook Parkway: — | | |
| Land, | $173,897 77 | |
| Miscellaneous, | 239,884 59 | |
| | | 413,782 36 |
| Nahant Beach Parkway: — | | |
| Land, | $80,940 78 | |
| Miscellaneous, | 76,014 13 | |
| | | 156,954 91 |
| Lynn Fells Parkway: — | | |
| Land, | $40,468 46 | |
| Miscellaneous, | 126,373 84 | |
| | | 166,842 30 |
| Winthrop Parkway: — | | |
| Land, | $101,565 73 | |
| Miscellaneous, | 54,523 38 | |
| | | 156,089 11 |
| Alewife Brook Parkway: — | | |
| Land, | $144,497 74 | |
| Miscellaneous, | 45,705 13 | |
| | | 190,202 87 |
| Charles River Speedway: — | | |
| Miscellaneous, | $521,348 66 | |
| | | 521,348 66 |
| Blue Hills Roads: — | | |
| Miscellaneous, | $8,742 06 | |
| | | 8,742 06 |
| Middlesex Fells Roads: — | | |
| Miscellaneous, | $61,483 68 | |
| | | 61,483 68 |
| Stony Brook Roads: — | | |
| Miscellaneous, | $37,183 45 | |
| | | 37,183 45 |

| | | |
|---|---|---|
| Lynnway: — | | |
| Land, | $20,500 00 | |
| Miscellaneous, | 124,368 29 | |
| | | $144,868 29 |
| Spy Pond Parkway: — | | |
| Miscellaneous, | $89 04 | |
| | | 89 04 |
| Old Colony Parkway: — | | |
| Land, | $235,417 37 | |
| Miscellaneous, | 39,504 02 | |
| | | 274,921 39 |
| Woburn Parkway: — | | |
| Land, | $3,958 75 | |
| Miscellaneous, | 52,038 32 | |
| | | 55,997 07 |
| Dedham Parkway: — | | |
| Land, | $10,527 01 | |
| Miscellaneous, | 22,552 42 | |
| | | 33,079 43 |
| Hammond Pond Parkway: — | | |
| Land, | $94,965 85 | |
| Miscellaneous, | 5,061 45 | |
| | | 100,027 30 |
| Quannapowitt Parkway: — | | |
| Land, | $6,625 00 | |
| Miscellaneous, | 1,831 82 | |
| | | 8,456 82 |
| West Roxbury Parkway: — | | |
| Miscellaneous, | $199 42 | |
| | | 199 42 |
| Vose's Grove: — | | |
| Miscellaneous, | $980 08 | |
| | | 980 08 |
| Wellington Bridge: — | | |
| Miscellaneous, | $120,796 40 | |
| | | 120,796 40 |
| Neponset Bridge: — | | |
| Miscellaneous, | $26,354 96 | |
| | | 26,354 96 |
| Arlington Parkway: — | | |
| Miscellaneous, | $4,035 12 | |
| | | 4,035 12 |

| | | |
|---|---|---|
| West Street, Braintree: — | | |
| Miscellaneous, | $1,290 82 | |
| | | $1,290 82 |
| General expense, | | 107,090 19 |
| | | $6,082,768 48 |
| Sinking fund requirements for 1896, | $3,650 03 | |
| Sinking fund requirements for 1897, | 14,057 10 | |
| Sinking fund requirements for 1898, | 3,765 08 | |
| Sinking fund requirements for 1899, | 15,396 00 | |
| One-half interest, | 22,327 68 | |
| | | 59,195 89 |
| Total charged to Dec. 1, 1917, | | $6,141,964 37 |
| Balance Dec. 1, 1917, | | 731,949 79 |
| | | $6,878,914 16 |

NANTASKET BEACH LOAN.

| | |
|---|---|
| Land, | $603,329 57 |
| Miscellaneous, | 102,551 93 |
| Total charged to Dec. 1, 1917, | $705,881 50 |

CHARLES RIVER BASIN LOAN.

| | |
|---|---|
| Expended from beginning of work to Dec. 1, 1917, | $4,469,933 63 |

The above amount has been distributed as follows: —

| | |
|---|---|
| Administration, | $108,060 16 |
| Dam, | 1,118,772 60 |
| Lock, | 724,142 64 |
| Temporary bridge and approaches, | 184,895 36 |
| Drawbridge, | 100,371 06 |
| Highway, | 55,557 85 |
| Dredging, pile-driving and protection work in Basin, | 179,881 35 |
| Broad Canal, | 117,251 64 |
| Lechmere Canal, | 53,388 87 |
| Boston Embankment, | 895,213 92 |
| Boston Marginal Conduit, | 635,511 96 |
| Cambridge Marginal Conduit, | 99,472 48 |
| Elimination of malarial mosquitoes, | 1,173 68 |
| Landing piers, | 7,667 99 |
| Float anchorage, | 23 90 |

| | | |
|---|---|---|
| Police signal system, | $9,847 56 | |
| Improvement of south bank and driveway, | 31,506 09 | |
| Service sheds, | 19,198 95 | |
| Mortuary, | 1,560 66 | |
| Otter Street widening, | 34,762 82 | |
| Landing near Faneuil Station, | 1,057 83 | |
| Alterations and improvements in stable and stable yard, | 1,905 75 | |
| Maintenance, | 88,708 51 | |
| | | $4,469,933 63 |

Respectfully submitted,

GEO. LYMAN ROGERS,
*Secretary.*

Dec. 1, 1917.

# REPORT OF THE ENGINEER.

Hon. WILLIAM B. DE LAS CASAS, *Chairman, Metropolitan Park Commission.*

SIR: — I submit herewith the report of the Engineer for the year ending Nov. 30, 1917, as follows: —

On account of general unsettled conditions and the necessity for economy, little new construction work by this department was authorized by the Legislature of 1917. The work in progress at the beginning of the year has been carried on to completion, but on account of difficulty of obtaining labor and materials, very little new work, except that which was particularly necessary, has been undertaken even though funds were available from previous appropriations. The most important pieces of construction work, which were in progress and have been completed this year, were the concrete arch bridges over the Charles River at Commonwealth Avenue, Riverside, Newton and Weston, and at North Beacon Street, Boston and Watertown. The most important new work undertaken has been the filling of slopes outside bulkheads and covering of surface with loam at Nahant Playground, which work was necessary for the protection from the elements of the work previously done; and the construction of a temporary bridge across the Neponset River in preparation for the work of building new permanent bridge on the site of the present one, which is in a weak and dangerous condition.

The maintenance work, however, has necessarily been continued as usual, and the amount of the services of the engineering department required for this work has remained approximately the same as last year.

During the year the Engineering force has been reduced about one-half by the departure of men who have entered the military and naval service and the resignations of others to accept employment on emergency work of the Federal government.

Most of the vacancies so caused have not been filled, as the general policy of economy and curtailment in new construction work has considerably diminished the number required.

Considerable preliminary work has been done by the department in making surveys, investigations, plans, etc., for the preparation of reports on special matters, required by the Legislature. The most important of these are the investigation as to the condition and repair of wharves and walls on Broad and Lechmere canals, Charles River Basin, and the investigation as to the construction and maintenance of all the bridges over the Charles River in the Metropolitan District.

The care and operation of all locks and drawbridges under the control of this Commission have been under the supervision and direction of this department. The work of maintenance, repairs and resurfacing of roadways has been done by the forces of the various divisions, and where necessary the services of this department have been furnished.

The cost of conducting the department has been as follows: —

| | | |
|---|---|---|
| Engineering: — | | |
| Construction: — | | |
| Services, | $13,752 11 | |
| Expenses, | 1,789 85 | |
| | | $15,541 96 |
| Maintenance: — | | |
| Services, | $19,438 80 | |
| Expenses, | 2,204 55 | |
| | | 21,643 35 |
| Total, | | $37,185 31 |

Details of the work done under the direction and supervision of this department are given under the following sections of parkway and reservation and in the tables appended.

## Construction.

### *Parkways.*

*Alewife Brook Parkway.* — Concrete retaining walls and curbing have been built to extend from the present end of the wall near the car barns to Woodstock Street. This section was omitted at the time of the construction of the Parkway last

year, as the location of the Metropolitan Sewer interfered with the work, and it was necessary to fill the embankment and await the settlements before building it.

Some changes have been made in the roadway lines at the junction of the Parkway and Powder House Boulevard and at the large triangle at this point, and additional edgestone has been set.

In the section of Powder House Boulevard between the junction of the Parkway and Mystic Valley Parkway, which has been transferred to this Commission for care and control, no street lights had been provided by the city of Somerville. The same system of electric arc lamps as is used in the other sections of the Boulevard has been extended through this section with underground conduits.

*Furnace Brook Parkway.* — The section of this Parkway from Hancock Street to Quincy Shore Reservation, although opened to public travel in November, 1916, was prepared only in a temporary manner, and considerable more work is necessary before it will be in a finished condition. During the last year a small appropriation was expended in the construction of an additional drainage system and grading of walks and planting spaces and the preparation of tree pits. The work was done by the forces of the division.

Studies and estimates have been made for completing the connection between Hancock Street and Adams Street, Quincy, and plans have been prepared for the taking and exchange of land belonging to the National Sailors' Home.

*Hammond Pond Parkway.* — Revised studies and plans have been made for the layout of the Parkway and estimates of cost for extension to the West Roxbury Parkway. Also topographical plans and taking plans have been prepared.

*Nahant Beach Parkway.* — The temporary wooden bulkhead, built to retain the filling material deposited for the playground, showed signs of failure at some points, and it was necessary to immediately fill the slopes outside this bulkhead for its protection, as was originally contemplated in the plans. The Bay State Dredging and Contracting Company had a contract with the Commission on Waterways and Public Lands in June, 1917, to excavate a channel at the entrance to Saugus River, Lynn

Harbor, and arrangements were made with this company to deposit the material so excavated as near as possible to the bulkhead and rehandle it in to form the slopes; 9,444 cubic yards were so placed at a total cost of $5,666.40. The slopes were not wholly completed under this contract because of lack of material and because that furnished was not suitable for the top surfaces, which must be of heavy gravel.

The material previously deposited inside the bulkhead by hydraulic dredge was a very fine sand and silt, and when it was thoroughly dry was carried in large quantities by the winds into the bath-house and onto the surrounding grounds. To prevent this disagreeable condition, as much loam as it was possible to obtain with the funds available was spread in a thin layer over the surface; 3,700 cubic yards of loam were purchased from P. J. McDermott of Lynn at a total cost of $4,811.69. The work of grading and leveling, which was necessary before spreading the loam, was done by P. J. McDermott at a cost of $1,774.03.

*Old Colony Parkway.* — The Boston Development and Sanitary Company, Contractors for the collection of household ashes in the Dorchester District, submitted a proposal to deposit these ashes for the filling of the embankments of the Parkway at the rate of 9 cents per cubic yard. The contract was made and the work of delivery began on March 8, 1917. After receiving 15,834 cubic yards at a cost of $1,425.06, the work was stopped on August 3 on account of too large a percentage of paper and rubbish contents. The work of delivery was again resumed on November 1, and is still in progress. To Nov. 30, 1917, 2,824 cubic yards more had been delivered at a cost of $254.16. This material has been deposited in the section along Neponset Avenue where old buildings were removed and cellar holes left, and in playground section. As this method of obtaining the material for the filling of the Parkway is economical, it is hoped that arrangements can soon be made for delivery of the ashes from other sections of the district to other points along the line of the Parkway.

The plans and specifications for a new bridge over the Neponset River, Boston and Quincy, to replace the old wooden pile trestle bridge at Neponset have been completed, and the fol-

lowing bids were received for the whole work on Feb. 26, 1917: —

| | |
|---|---|
| Hugh Nawn Contracting Company, Roxbury, | $465,486 00 |
| Coleman Brothers, Chelsea, | 447,950 00 |
| T. L. Eyre, Philadelphia, | 447,357 00 |
| Bay State Dredging and Contracting Company, Boston, | 440,008 30 |
| George T. Rendle, East Boston, | 430,868 30 |
| T. Stuart & Son Company, Newton, | 431,530 00 |
| Holbrook, Cabot & Rollins Corporation, Boston, | 422,946 50 |
| H. P. Converse & Co., Boston, | 410,734 00 |

The lowest bid, $410,734, considerably exceeded the appropriation, which was $350,000, on account of the fact that the cost of labor and materials had greatly increased since the appropriation was made. Therefore, all bids were rejected by the Commission, and the Legislature was asked to make an additional appropriation of $100,000. This additional appropriation was granted, and the work again advertised for bids, omitting the steel drawbridge as it was difficult to obtain bids for structural steel at this time. On July 2, 1917, the following bids were received: —

| | |
|---|---|
| Hugh Nawn Contracting Company, Roxbury, | $427,405 00 |
| Holbrook, Cabot & Rollins Corporation, Boston, | 381,074 00 |
| Bay State Dredging and Contracting Company, Boston, | 358,363 50 |

The amount of the low bid together with the estimated cost of the steel drawbridge and engineering and inspection would still exceed the total appropriations, and all bids were again rejected.

The old wooden pile trestle bridge was in very bad condition, and it was thought advisable by the Commission to construct the wooden temporary bridge necessary in the work of building the new permanent bridge and turn public travel onto this, thereby saving the cost of extensive repairs to the old bridge. For this work the following bids were received on July 31, 1917: —

| | |
|---|---|
| Bay State Dredging and Contracting Company, Boston, | $58,500 00 |
| George T. Rendle Company, East Boston, | 48,900 00 |
| Rendle & Stoddard Company, Chelsea, | 46,500 00 |

In connection with these bids, proposals were also asked to do the work on a percentage basis. That of the Hugh Nawn Contracting Company was deemed best for the interest of the Commonwealth, and a contract was made on the following basis: —

The Commission was to furnish all materials.

The Contractor was to furnish all plant at stated rental prices.

The Contractor was to furnish all laborers and mechanics at the prevailing prices plus 10 per cent.

Contracts were made by the Commission for the materials, and the work was begun. About this time the Federal government commenced the construction of the Victory Plant at Squantum near the site of this bridge, and great difficulty was encountered in obtaining materials, plant and men, as the work at Squantum has precedence over our work. Therefore, instead of being completed about the first of the year as was expected, our work, although still in progress, will be delayed in completion until spring.

In the construction of the new bridge and the temporary bridge, the location of the channel of the river is to be changed, and this dredging was necessary before the temporary bridge was built. On July 31, 1917, the following bids were received for this work: —

| | |
|---|---|
| Hugh Nawn Contracting Company, Roxbury, | $18,000 00 |
| Boston Dredging Company, East Boston, | 13,350 00 |
| George T. Rendle Company, East Boston, | 12,900 00 |
| Bay State Dredging and Contracting Company, Boston, | 11,700 00 |

The contract was awarded to the Bay State Dredging and Contracting Company, and the work has been completed as far as possible until the removal of the old bridge.

There are located on the old bridge one 12-inch gas main and two water mains, one 12 inches and one 6 inches. The change of location of the channel necessitates the construction of new siphons for these under the new channel. Plans have been prepared for a combined siphon for both gas and water mains to be built on a temporary trestle above high water and when completed to be lowered into place 30 feet below mean low water. This work is now in progress.

*Reservations.*

*Charles River Reservation, Lower Basin Section.* — A small addition to the lower lock gate house has been built of similar materials and architecture to that of the main building. This addition is to be used as a mortuary in which to keep bodies recovered from the Basin until taken by the Medical Examiner. The following bids were received for the work on April 18, 1917: —

| | |
|---|---|
| William Crane, Cambridge, | $3,600 00 |
| F. F. Jonsberg Company, Boston, | 2,332 00 |
| Austin W. McLean, Charlestown, | 1,391 50 |

The proposal of Austin W. McLean was accepted. The work was begun on April 30, 1917, and completed on Sept. 10, 1917. The work was delayed by the great difficulty of obtaining materials.

The work of widening Otter Street, which is the entrance from Beacon Street to the Charles River Embankment, was begun on Nov. 8, 1916, and was nearly completed last year, but on account of the unfavorable weather conditions the asphalt surfacing work was postponed until spring. This work was finished on April 25, 1917.

Surveys and plans of proposed junction between Charles River Reservation Drive and Commonwealth Avenue, near Essex Street, have been made.

In accordance with chapter 79, Resolves of 1917, surveys and investigations as to the condition and repair of wharves and walls on Broad and Lechmere canals have been made by this department, and a report, with estimates of cost of repairs and rebuilding, has been made to the Commission.

In accordance with chapter 119, Resolves of 1917, surveys and investigations as to the condition of all bridges over the Charles River in the Metropolitan District have been made by this department, and a report, with estimates of cost of repairs, rebuilding and maintenance, has been made to the Commission.

*Charles River Reservation, Upper Division.* — The work of finishing the North Beacon Street Bridge, Boston and Watertown, and surfacing the roadway and walks on the bridge and

approaches, installing street lighting and channel lighting systems, building fences and grading and finishing slopes has been completed. The roadway surface on the bridge is wood block pavement on a concrete base. The walks are surfaced with granolithic. The roadway surface on the easterly or Boston approach is a bituminous macadam with granite block pavement in car track location. On the westerly or Watertown approach the roadway has been surfaced with granite block pavement on a concrete base at the request of the town officials, who desired it to conform to the proposed pavement of North Beacon Street, which they are widening. The difference in cost over that of bituminous macadam was paid by the town of Watertown.

The total cost of the bridge and approaches to date has been as follows: —

| | | | | |
|---|---|---|---|---|
| Contract No. 186, bridge and approaches: — | | | | |
| Previously reported: — | | | | |
| Contract estimates, . . | | $92,336 59 | | |
| Additional labor and materials, . . . . | | 266 18 | | |
| Engineering services: — | | | | |
| Preliminary, | $1,669 60 | | | |
| Actual, . | 3,449 70 | | | |
| | | 5,119 30 | | |
| Engineering expenses, . . | | 816 34 | | |
| | | | $98,538 41 | |
| Year ending Nov. 30, 1917: — | | | | |
| Contract estimates, . . | | $28,403 32 | | |
| Additional labor and materials, . . . . | | 1,191 00 | | |
| Engineering services: — | | | | |
| Preliminary, | $400 04 | | | |
| Actual, . | 1,709 05 | | | |
| | | 2,109 09 | | |
| Engineering expenses, . . | | 154 14 | | |
| | | | 31,857 55 | |
| Total, . . . . . | | | | $130,395 96 |

| | | | | |
|---|---|---|---|---|
| Contract No. 188, filling material: — | | | | |
| Previously reported: — | | | | |
| Contract estimates, . . | | $3,705 00 | | |
| Engineering services: — | | | | |
| Preliminary, | $3 75 | | | |
| Actual, . | 104 91 | | | |
| | | 108 66 | | |
| Engineering expenses, . . | | 16 68 | | |
| | | | $3,830 34 | |
| Year ending Nov. 30, 1917: — | | | | |
| Contract estimates, . . | | $14,743 68 | | |
| Engineering services: — | | | | |
| Actual, . . . . . | | 913 53 | | |
| Engineering expenses, . . | | 47 59 | | |
| | | | 15,704 80 | |
| Total, . . . . . | | | | $19,535 14 |
| Surfacing and completing approaches: — | | | | |
| Year ending Nov. 30, 1916: — | | | | |
| Engineering services: — | | | | |
| Preliminary, . . . . | | $99 84 | | |
| Engineering expenses, . . | | 10 | | |
| | | | $99 94 | |
| Year ending Nov. 30, 1917: — | | | | |
| Labor and materials, . . | | $20,792 53 | | |
| Engineering services: — | | | | |
| Preliminary, | $93 96 | | | |
| Actual, . . | 273 17 | | | |
| | | 367 13 | | |
| Engineering expenses, . . | | 256 03 | | |
| | | | 21,415 69 | |
| Total, . . . . . | | | | 21,515 63 |
| Grand total, . . . . . | | | | $171,446 73 |

The work of constructing reinforced concrete arch bridge and approaches at Commonwealth Avenue, Newton and Weston, has been completed. On account of lack of funds it was possible to lay only a temporary surface on the roadways of the approaches. This surface consists of gravel with a penetration treatment of "Tarvia B."

The total cost has been as follows: —

| | | | | |
|---|---|---|---|---|
| Contract No. 190, bridge and approaches: — | | | | |
| Previously reported: — | | | | |
| Contract estimates, . . | | $49,923 08 | | |
| Additional labor and materials, . . . . | | 579 83 | | |
| Engineering services: — | | | | |
| Preliminary, | $1,339 95 | | | |
| Actual, . | 1,917 44 | | | |
| | | 3,257 39 | | |
| Engineering expenses, . . | | 430 10 | | |
| | | | $54,190 40 | |
| Year ending Nov. 30, 1917: — | | | | |
| Contract estimates, . . | | $924 37 | | |
| Additional labor and materials, . . . . | | 923 28 | | |
| Engineering services: — | | | | |
| Actual, . . . . | | 218 22 | | |
| Engineering expenses, . . | | 11 94 | | |
| | | | 2,077 81 | |
| Total, . . . . . | | | | $56,268 21 |
| Contract No. 197, completing work not finished under Contract No. 190: — | | | | |
| Contract estimates, . . . . . | | | $500 00 | |
| Additional labor and materials, . . | | | 132 88 | |
| Engineering services: — | | | | |
| Actual, . . . . . | | | 70 02 | |
| Engineering expenses, . . . . . | | | 6 58 | |
| Total, . . . . . | | | | 709 48 |
| Temporary surfacing of approaches: — | | | | |
| Labor and materials, . . . . . | | | $4,021 54 | |
| Engineering services: — | | | | |
| Preliminary, . . . | | $51 13 | | |
| Actual, . . . . | | 418 62 | | |
| | | | 469 75 | |
| Engineering expenses, . . . . . | | | 232 88 | |
| Total, . . . . . | | | | 4,724 17 |
| Grand total, . . . . . | | | | $61,701 86 |

A section of the marsh land near Gerry's Landing on the Cambridge side of the river has been underdrained and graded with gravel and loam to make it available for a ball field. The work was done by the forces of the division at a cost of $1,619.96.

*Middlesex Fells Reservation.* — A section of the South Border Road about 1,000 feet long, just south of the Whitmore Brook entrance, has been graded by the forces of the division. This section of road follows the boundary line and when finished will provide a more direct route than the present longer, narrow and winding detour by the old road. In other sections of this South Border Road other improvements have been made in the grades and drainage. Surveys and engineering services for this work have been furnished by this department.

Additional concrete curbing and walks have been built along the easterly side of Forest Street, where it runs along close to Spot Pond at Porter's Cove, for the guidance of vehicular traffic and the safety of pedestrians. This work was done by the forces of the division under the supervision of this department.

*Nantasket Beach Reservation.* — Engineering services have been furnished for the construction of a sanitary building and for surfacing with concrete the driveway in the café yard.

Extensive additions have been made to their docks and wharves by the Nantasket Steamboat Company, and this work has necessitated the extension of several drains from the Reservation. The work was done under the direction of this department by the contractor who was building the docks. The total cost was $1,442.71.

## Maintenance.

### *Parkways.*

*Alewife Brook Parkway.* — The channel of Alewife Brook between Massachusetts Avenue and Woodstock Street has been dredged to the prescribed depths as originally constructed. Excessive shoaling had occurred in this section on account of the entrance of Tannery Brook. The work was done by the forces of the division by means of the small portable dredging plant purchased for that purpose last year. Other sections of the channel have shoaled somewhat, so that they should be dredged in the near future, but none to such extent as that between Massachusetts Avenue and Woodstock Street.

Temporary repairs have been made to Hill Road Bridge. This is a small wooden structure and was designed to carry only

ordinary farm wagons and machinery as it is not a public way, but of late heavy motor trucks have been using it and have caused some damage to the floors. Either motor trucks should be excluded or the bridge strengthened to carry the extreme loads. The estimated cost of strengthening is $1,100.

*Revere Beach Parkway.* — Extensive repairs have been made to the steel bridge over the Boston & Maine Railroad near Revere Station. This bridge has a double roadway, one for Winthrop Avenue and one for the Parkway. The cost of maintenance of the Winthrop Avenue portion is borne by the railroad company, and the Parkway portion by this Commission. Practically no repairs except painting had been made to the structure since its construction in 1902. Repairs had become necessary to the wooden floor system, and upon its removal it was discovered that portions of the steel structure below the floor level had been so badly eaten away by the gases from the locomotives that it was necessary to replace them with new parts. The work was done by the Boston Bridge Works, and the cost was $3,060.71.

Similar repairs also were made to the bridge over the Boston, Revere Beach & Lynn Railroad near Beachmont. The work was done by the Boston Bridge Works at a cost of $245.98.

*Reservations.*

*Charles River Reservation, Lower Basin Section.* — The surface of the brick pavement in the yard of the garage and stable on Commercial Street, Cambridge, had become very uneven and irregular on account of the settlement of the subgrade filling. This pavement has been removed and the yard resurfaced with a concrete pavement. The bricks were unsuitable to use in the resurfacing as they were badly broken in removal, because the joints were grouted with Portland cement when originally laid. The cost of this work was $549.67.

The arrangement of the stalls and fittings in the stable has been inconvenient and crowded, and they have been removed and rearranged both on the lower floor and in the loft, so as to give ampler room for handling the horses and supplies. The cost was $1,354.41.

Further repairs have been made to the granolithic of the

promenade along the Embankment by the removal and replacing of portions damaged by settlements, 1,099 square yards being laid under a contract with W. A. Murtfeldt Company at a cost of $1,956.22.

*Lynn Shore Reservation.* — The old granite sea wall between Washington Street and Nahant Street, built by the city of Lynn previous to the transfer of Oceanside Park to the control of this Commission, was undermined by a severe southeast storm on Oct. 24, 1917, and a section about 100 feet in length collapsed. This section has been rebuilt on a concrete base, and the rest of the wall protected and preserved by building a concrete toe-wall under the face. The cost of this work has been $1,780.67.

### Bridges and Locks.

*Charles River Dam.* — In 1910 when the Basin and Dam were turned over to this Commission by the Charles River Basin Commission for care and control, the maintenance and operation of the locks, sluices and drawbridge and all plant and machinery connected therewith were put in charge of the Engineering Department. In January, 1915, the Wellington Bridge and Draw over the Mystic River was put in charge of this department for reconstruction after the fire, and in September, 1915, for maintenance and operation. In March, 1915, the Cradock Bridge Lock in the Mystic River, and on Dec. 1, 1916, the Malden River Bridge and Draw and the Saugus River Bridge and Draw were transferred from the division superintendents to the Engineering Department for maintenance and operation. These have all been placed under the direct charge of the Electrical Engineer Superintendent of the Charles River Dam, who reports to the Engineer. The total force required for this work is about 55 men.

During the year additional signs, lights, locks and fastenings for the drawbridge gates and other safety devices have been installed at the drawbridges for the prevention, as far as possible, of accidents to electric cars and other vehicles.

The channels and canals of the Lower Basin Section have been kept clear of ice during the last winter season. A boat was chartered for three months from Dec. 15, 1916, to March 15, 1917, and kept in the basin at all times for this work. The

total cost was $6,510.90. Great difficulty has been encountered in obtaining proposals for this work for the coming season, on account of the great scarcity of towboats and the disinclination of the owners to do this class of work. No proposals were obtained from advertising or invitation, and only after personal appeals were we able to obtain three bids. The lowest of these, that of the Bay State Dredging and Contracting Company, which was accepted, will amount to twice the cost of the work last year. On account of the importance of this work, I again recommend that the Commission purchase a boat. Under existing conditions, however, this would probably be equally as difficult as hiring one.

The large steel lock-gates in the ship lock at the Charles River Dam were repaired and painted in April, 1917, at a total cost of $3,301.54. The work was done by the forces employed at the Dam, supplemented by painters furnished by a contractor, Charles H. McMaster. In previous years, this work has been done in February, the time specified by the Engineer Officer, United States War Department, as it was necessary to close the lock to navigation. It was changed to April this year at the urgent request of the business concerns interested, with the approval of the United States Engineer Officer. It will be necessary to do similar work again in April, 1918.

The surface of the drawbridge at the Charles River Dam was replanked twice during the year, and considerable of the underdecking renewed. The boilers have been inspected by the State Boiler Inspector, and a certificate of good condition given. An automatic damper and smoke consumer has been installed and some of the piping renewed. The Boston and Cambridge Marginal Conduits have been inspected and some minor repairs made.

The small boat lock was opened on June 23 and closed on Oct. 31, 1917, and was used to less extent than usual. The heating plant was shut down on June 7 and started on Sept. 24, 1917.

*Saugus River Bridge.* — At Saugus River Bridge the surface planking on the draw was renewed, and the steel structure scraped and painted by the regular maintenance forces.

*Wellington Bridge.* — At Wellington Bridge the surface planking on the draw was renewed and the steel structure painted.

*Traffic.* — The following is a record of the traffic and freights which have passed through the locks and drawbridges during the year: —

CHARLES RIVER DAM AND LOCKS.

*Main Lock.*

| | |
|---|---|
| Number of openings, | 3,133 |
| Number of vessels, | 3,609 |
| Number of small boats, | 1,377 |
| Lumber (feet B.M.), | 6,300,000 |
| Sand (tons), | 132,584 |
| Granite (tons), | 3,640 |
| Coal (tons), | 328,236 |
| Gravel (tons), | 66,780 |
| Oil (barrels), | 180,090 |
| Water (gallons), | 14,000 |
| Stone, rubble (tons), | 4,480 |
| Lathes (bundles), | 50,000 |
| Wood paving blocks (tons), | 800 |
| Piling (lineal feet), | 73,000 |
| Piling (pieces), | 2,496 |
| Molasses (barrels), | 2,270 |
| Miscellaneous (tons), | 700 |

*Small Boat Lock.*

| | |
|---|---|
| Number of openings, | 1,026 |
| Number of boats, | 1,504 |

There were 2,444 drawbridge openings.

WELLINGTON BRIDGE.

| | |
|---|---|
| Number of openings, | 186 |
| Number of vessels, | 297 |

MALDEN RIVER BRIDGE.

| | |
|---|---|
| Number of openings, | 490 |
| Number of vessels, | 834 |

SAUGUS RIVER BRIDGE.

| | |
|---|---|
| Number of openings, | 339 |
| Number of vessels, | 494 |

CRADOCK LOCK.

| | |
|---|---|
| Number of openings, | 464 |
| Number of boats, | 475 |
| Number of canoes, | 130 |
| Number of dories, over rollway, | 90 |

## General.

This department has supervised and inspected the work done under 157 permits issued to cities, towns, corporations and individuals for work in the parkways and reservations.

The bridges under the care and control of this Commission have been inspected and report made to the Secretary, with recommendations for necessary repairs, and the work of repairs supervised and inspected by this department.

Surveys and plans have been made for land conveyances.

The following tables are appended to this report: —

Table 1. — Data relating to Metropolitan Park System.
Table 2. — Summary of cost of road repairs and maintenance.

Respectfully submitted,

JOHN R. RABLIN,
*Engineer.*

Dec. 1, 1917.

TABLE 1. — DATA RELATING TO METROPOLITAN PARK SYSTEM.

*Areas of Reservations and Parkways.*

| | Acres. | |
|---|---|---|
| Reservations: — | | |
| Blue Hills, | 4,906.43 | |
| Middlesex Fells, | 1,898.09 | |
| Stony Brook, | 463.72 | |
| Beaver Brook, | 58.33 | |
| Hart's Hill, | 22.97 | |
| Hemlock Gorge, | 23.06 | |
| Charles River, | 710.30 | |
| Mystic River, | 54.08 | |
| Neponset River, | 922.59 | |
| King's Beach and Lynn Shore, | 22.69 | |
| Revere Beach, | 64.99 | |
| Winthrop Shore, | 16.83 | |
| Quincy Shore, | 32.91 | |
| Nantasket Beach, | 25.59 | |
| Total, | | 9,222.58 |
| Parkways: — | | |
| Hammond Pond, | 183.69 | |
| Blue Hills, | 83.58 | |
| Old Colony, | 55.20 | |
| Woburn, | 23.24 | |
| Middlesex Fells, | 82.12 | |
| Revere Beach, | 126.93 | |
| Mystic Valley, | 337.55 | |
| Neponset River, | 74.11 | |
| Fresh Pond, | 12.40 | |
| Lynn Fells, | 7.72 | |
| Furnace Brook, | 101.25 | |
| Nahant Beach, | 81.98 | |
| Lynnway, | 5.15 | |
| Winthrop, | 8.04 | |
| Dedham, | 35.87 | |
| Alewife Brook, | 144.53 | |
| West Roxbury, | 72.37 | |
| Quannapowitt, | 13.47 | |
| Total, | | 1,449.20 |
| Grand total, reservations and parkways, | | 10 671.78 |

*Lengths of Formal Roads constructed.*

| | Double Roadways (Miles). | Single Roadways (Miles). | Total Miles. |
|---|---|---|---|
| Reservations: — | | | |
| Charles River, | – | 4.87 | |
| Lynn Shore, | – | .96 | |
| Quincy Shore, | – | 2.24 | |
| Revere Beach, | – | 2.70 | |
| Stony Brook, | – | 2.34 | |
| Winthrop Shore, | – | 1.07 | |
| | | | 14.18 |
| Parkways: — | | | |
| Alewife Brook, | – | .70 | |
| Blue Hills, | 1.46 | 1.61 | |
| Fresh Pond, | – | .50 | |
| Furnace Brook, | – | 3.24 | |
| Lynn Fells, | – | 1.05 | |
| Lynnway, | – | .68 | |
| Middlesex Fells, | 4.10 | 1.77 | |
| Mystic Valley, | – | 5.50 | |
| Nahant Beach, | – | 2.52 | |
| Neponset River, | – | .53 | |
| Revere Beach, | 1.45 | 3.73 | |
| Winthrop, | – | .49 | |
| Woburn, | – | 1.38 | |
| | | | 23.70 |
| | 7.01* | | |
| * Equivalent in miles of single roadway, | | | 14.02 |
| Highways transferred by or taken from cities and towns: — | | Miles. | |
| Alewife Brook Parkway, | | .44 | |
| Blue Hills Reservation, | | 1.23 | |
| Middlesex Fells Reservation, | | 6.63 | |
| Nantasket Beach Reservation, | | .71 | |
| Nahant Beach Parkway, | | 2.05 | |
| | | | 11.06 |
| Grand total, | | | 62.96 |

All above roads open to automobile traffic.

*Lengths of Carriage Roads in Reservations.*

| | Miles. |
|---|---|
| Blue Hills Reservation, | 30.93 |
| Middlesex Fells Reservation, | 17.50 |
| Stony Brook Reservation, | 1.60 |
| Beaver Brook Reservation, | .22 |
| Charles River Reservation, | 3.70 |
| Total, | 53.95 |

Of the above roads 10.19 miles are open to automobile traffic.

*Lights in Parkways and Reservations.*

| | Lights. |
|---|---|
| Alewife Brook Parkway (Welsbach naphtha), | 17 |
| Alewife Brook Parkway (arc lights), | 6 |
| Blue Hills Parkway (Welsbach gas), | 80 |
| Furnace Brook Parkway (Welsbach gas), | 86 |
| Middlesex Fells Parkway (Welsbach naphtha), | 262 |
| Middlesex Fells Reservation (Welsbach naphtha), | 41 |
| Middlesex Fells Reservation (electric), | 48 |
| Mystic Valley Parkway (Welsbach naphtha), | 161 |
| Lynn Fells Parkway (Welsbach naphtha), | 33 |
| Nantasket Beach Reservation (electric), | 23[1,2] |
| Winthrop Parkway (Welsbach naphtha), | 11 |
| Winthrop Shore Reservation (electric), | 7 |
| Nahant Beach Parkway (electric), | 7[3] |
| Lynn Shore Reservation (electric), | 28 |
| Lynnway (electric), | 17 |
| Charles River Reservation, Upper Division along the Speedway (Welsbach naphtha), | 69[4] |
| Charles River Reservation, Upper Division, along Nonantum Road (Welsbach gas), | 19 |
| Revere Beach Parkway (Welsbach naphtha), | 169 |
| Revere Beach Parkway (electric), | 1 |
| Fresh Pond Parkway (electric), | 15 |
| Quincy Shore Reservation (Welsbach gas), | 78 |
| Quincy Shore Reservation (electric), | 2 |
| Revere Beach Reservation (Welsbach naphtha), | 35 |
| Revere Beach Reservation (Welsbach gas), | 53 |
| Revere Beach Reservation (electric), | 16[5] |
| Charles River Reservation, Boston Embankment (electric), | 104 |
| Charles River Reservation, Lower Basin, Dam and Lock (electric), | 15 |
| Woburn Parkway (Welsbach naphtha), | 31 |
| Total, | 1,434 |

[1] Twenty additional lights in summer.
[2] Three additional lights in summer south of bath-house near wall.
[3] Five additional lights in summer.
[4] Three electric lights in yard at administration building.
[5] Three hundred and ninety-five additional lights in summer.

*Miles of Seashore.*

| | Miles. |
|---|---|
| Lynn Shore, | 1.50 |
| Nahant Beach, | 3.92 |
| Revere Beach, | 2.74 |
| Winthrop Shore, | 1.71 |
| Nantasket Beach, | 1.02 |
| Quincy Shore, | 2.19 |
| Total, | 13.08 |

*Lengths of Sea Walls.*

| | Miles. |
|---|---|
| Lynn Shore, | 1.30 |
| Revere Beach at Northern Circle, | .08 |
| Revere Beach at Eliot Circle, | .15 |
| Revere Beach, shore protection, bath-house shelter to Revere Street shelter, | .29 |
| Revere Beach, shore protection, south of Northern Circle, | .28 |
| Winthrop Shore, bridge to Great Head, | 1.04 |
| Winthrop Shore, bridge to Grover's Cliff, | .23 |
| Quincy Shore Reservation, southerly end, | .15 |
| Nantasket Beach Reservation, | .43 |
| Total, | 3.95 |

*Miles of River Bank.*

| | Miles. |
|---|---|
| Charles River, | 28.13 |
| Mystic River, | 8.16 |
| Neponset River, | 15.86 |
| Alewife Brook, | 4.50 |
| Total, | 56.65 |

*Bridges*

| | |
|---|---|
| Reinforced concrete bridges, | 11 |
| Steel bridges, | 9 |
| Wooden bridges, | 5[1] |
| Drawbridges, | 5 |
| Footbridges, | 11 |
| Total, | 41 |

[1] One-half of Wellington Bridge rebuilt with concrete girders.

*Culverts.*

| | |
|---|---|
| Reinforced concrete and other masonry culverts, . . . . . | 26 |

*Dams.*

| | |
|---|---|
| Beaver Brook Reservation, small wooden dams, . . . . . | 2 |
| Charles River Reservation, Charles River Basin Tidal Dam, 1,200 feet in length, . . . . . | 1 |
| Charles River Reservation, reinforced concrete dam at Washington Street, Newton Lower Falls, 200 feet in length, . . . | 1 |
| Hemlock Gorge Reservation, small reinforced concrete dam on East Branch of river, Newton Upper Falls, . . . . . | 1 |
| Hemlock Gorge Reservation, reinforced concrete dam in Charles River at Boylston Street, Newton Upper Falls, 90 feet in length, . . . . . | 1 |
| Mystic River Reservation, reinforced concrete tidal dam at Cradock Bridge, 100 feet in length; weirs, 400 feet in length, | 1 |
| Total, . . . . . | 7 |

*Lock-gates, Sluice-gates and Tide-gates.*

Charles River Reservation, Charles River Basin Tidal Dam, 6 lock-gates, 13 sluice-gates, 43 tide-gates.
Mystic River Reservation, Cradock Bridge Tidal Dam, 2 lock-gates, 4 sluice-gates, 8 tide-gates.
Quincy Shore Reservation, 8 tide-gates.
Revere Beach Parkway, 1 tide-gate.

*Police Signal System.*

| | Miles. |
|---|---|
| Blue Hills Division, . . . . . | 30½ |
| Middlesex Fells Division, . . . . . | 18¼ |
| Nantasket Beach Division, . . . . . | 2½ |
| Charles River Reservation, . . . . . | 10 |
| Fresh Pond Parkway, . . . . . | ½ |
| Total, . . . . . | 61¾ |

Revere Beach Division Police Signal System, serving 11 miles of parkways and reservations, and Middlesex Fells Division, serving 1½ miles of parkway, on wires leased from the New England Telephone and Telegraph Company. Two miles of wire in Blue Hills Reservation leased from the New England Telephone and Telegraph Company.

*Buildings.*

| | Hammond Pond Parkway. | Blue Hills. | Middlesex Fells. | Revere Beach. | Charles River Reservation. | | Nantasket Beach. | Beaver Brook. | Totals. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Basin. | Upper Division. | | | |
| Police stations, | – | 1 | 1 | 2 | – | 2 | 1 | – | 7 |
| Substations, | 1 | 5 | 2 | 3 | 2 | 1 | – | – | 14 |
| Separate work, headquarters, | – | – | 1 | 1 | – | – | – | – | 2 |
| Stables, | – | 5 | 3 | 2 | 1 | 3 | 1 | 1 | 16 |
| Superintendents' houses, | – | 1 | – | 1 | – | 2 | – | 1 | 5 |
| Dwellings, | – | 10 | 6 | – | – | 4 | 2 | – | 22 |
| Garages, | – | 4 | 1 | 2 | 1 | 1 | 1 | – | 10 |
| Carpenter shops, | – | 1 | 1 | 1 | – | 1 | – | – | 4 |
| Paint shops, | – | – | 1 | 1 | 1 | – | 1 | – | 4 |
| Other shops, | – | – | 3 | 2 | – | 4 | 1 | – | 10 |
| Sheds, | – | 2 | 6 | 3 | 1 | 1 | – | – | 13 |
| Miscellaneous, | – | 2 | 13 | 3 | 5 | 4 | 5 | 2 | 34 |
| Band stands, | – | 1 | 3 | 3 | 1 | 8 | 1 | 1 | 18 |
| Shelters, | – | – | 1 | 4 | 1 | 1 | 1 | 1 | 9 |
| Refectories, | – | 2 | – | – | 1 | – | 1 | – | 4 |
| Hotel, | – | – | – | – | – | – | 1 | – | 1 |
| Sanitaries, | – | 3 | 6 | 2 | 1 | 4 | 7 | 1 | 24 |
| Boathouses, | – | – | – | 1 | 1 | 6 | – | – | 8 |
| Bath-houses, | – | 3 | 2 | 2 | – | 3 | 1 | – | 11 |
| Laundries, | – | – | – | 1 | – | – | 1 | – | 2 |
| Coal bin, | – | – | – | – | – | – | 1 | – | 1 |
| | | | | | | | | | 219 |

TABLE 2. — SUMMARY OF COST OF ROAD REPAIRS AND MAINTENANCE, 1917.

| PARKWAY OR RESERVATION. | Length (Feet). | Width of Roadway (Feet). | Square Yards. | Cost per Square Yard in Detail. | | | | | | | Total Amount. | Remarks. | Location. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Labor (Cents). | Gravel (Cents). | Broken Stone (Cents). | Sand (Cents). | Bituminous Binder or Dust Layer. | | | Total Cost (Cents). | | |
| | | | | | | | | Kind of Material. | Gallons per Square Yard. | Cost (Cents). | | | |
| Blue Hills Parkway, . | 7,700 | 36 | 30,800 | 1.29 | – | – | – | Asphaltic road oil No. 6 Standard Oil Company). | .20 | 1.59 | 2.88 | $886 90 | Surface treatment, | Mattapan Bridge to Canton Avenue (East Roadway), Milton. |
| Blue Hills Parkway, . | 7,700 | 26, 30 | 22,555 | 2.24 | – | – | – | Tarine No. 1 and No. 2 (American Tar Company). | .21 | 2.13 | 4.37 | 986 52 | Surface treatment, | Mattapan Bridge to Canton Avenue (West Roadway), Milton. |
| Charles River Reservation. | 2,100 | 45 | 9,590 | 1.37 | – | 2.54 | – | Tarvia A (Barrett Manufacturing Company), | .35 | 2.68 | 6.59 | 631 98 | Surface treatment, | Short side road, Charles Street to Back Street, Boston. |
| Charles River Reservation. | 2,350 | 60 | 15,667 | 8.71 | – | 16.36 | .43 | Tarine No. 1 and No. 2, | 1.00 | 8.25 | 33.75 | 5,288 32 | Resurfacing, . | Soldiers Field Road, Station 42—65+50, Brighton. |
| Charles River Reservation. | 4,710 | 26, 40, 60 | 28,585 | .52 | – | – | .24 | Tarine No. 1, . . | .33 | 2.66 | 3.42 | 977 75 | Surface treatment, | Soldiers Field Road, Western Avenue to Station 42, Brighton. |
| Charles River Reservation. | 4,280 | 40, 60 | 22,689 | .64 | – | .76 | .11 | Tarine No. 1, . . | .16 | 1.25 | 2.75 | 625 98 | Surface treatment, | Soldiers Field Road, North Harvard Street to Station 49, Brighton. |
| Charles River Reservation. | 3,900 | 36 | 15,600 | 1.33 | – | 1.21 | .15 | Standard binder A (Standard Oil Company). | .28 | 2.62 | 5.31 | 829 10 | Surface treatment, | Nonantum Road, Newton and Brighton. |
| Charles River Reservation. | 9,300 | 13 | 13,433 | .30 | – | .06 | – | Asphaltic road oil No. 4 (Standard Oil Company). | .16 | 1.27 | 1.63 | 219 43 | Surface treatment and patching. | Quinobequin Road, Newton Upper Falls to Newton Lower Falls. |
| Fresh Pond Parkway, . | 2,700 | 40 | 12,000 | 1.54 | – | .79 | .20 | Standard binder A, . | .30 | 2.85 | 5.38 | 646 11 | Surface treatment, | Mt. Auburn Street to Huron Avenue, Cambridge. |
| Furnace Brook Parkway. | 6,050 | 24, 26 | 16,800 | 2.78 | – | – | – | Rotar (American Tar Company). | .57 | 4.81 | 7.59 | 1,276 00 | Surface treatment, | Fenno Street to Park Lane, Quincy. |
| Furnace Brook Parkway. | 2,300 | 26 | 6,644 | 2.78 | – | – | – | Tarvia B (Barrett Manufacturing Company). | .35 | 2.80 | 5.58 | 370 95 | Surface treatment, | Park Lane to Hancock Street, Quincy. |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Middlesex Fells Parkway. | 1,880 | 30, 40 | 6,933 | 3.22 | – | 4.58 | – | Tarvia A, . . . | .68 | 5.61 | 13.41 | 929 | 91 | Resurfacing, . | Mystic Avenue to Wellington Bridge (Westerly Roadway), Somerville. |
| Middlesex Fells Parkway. | 1,725 | 36 | 6,900 | 35.83 | – | 42.51 | – | Standard binder A, . | 1.62 | 15.36 | 93.70 | 6,465 | 49 | Reconstruction, . | Fells Avenue to Park Street (Northerly Roadway), Medford. |
| Middlesex Fells Reservation. | 1,585 | 20 | 3,522 | 31.55 | – | 46.14 | – | Standard binder A, . | 1.93 | 18.30 | 95.99 | 3,380 | 89 | Reconstruction, . | South Street, Main Street to Pond Street, Stoneham. |
| Mystic Valley Parkway, | 3,400 | 40 | 15,111 | 26.02 | – | 36.15 | – | Standard binder A, . | 1.62 | 16.01 | 78.18 | 11,814 | 15 | Reconstruction, . | Boston Avenue to Winthrop Street, Somerville and Medford. |
| Nantasket Beach Reservation. | 3,140 | 45, 75, 90 | 18,900 | 16.49 | – | 3.82 | – | Tarvia B, . . . | .63 | 5.64 | 25.95 | 4,904 | 81 | Resurfacing, . | Nantasket Avenue and Wharf Avenue, Hull. |
| Revere Beach Parkway, | 380 | 36 | 1,520 | [1]51.46 | 9.59 | 40.17 | – | Tarine No. 1 and No. 2, | 2.46 | 20.52 | 121.74 | 1,850 | 42 | Reconstruction, . | Broadway, 380 feet westerly, Revere. |
| Revere Beach Parkway, | 692 | 26 | 2,000 | 11.87 | – | 18.77 | – | Tarbinder No. 3 (Independent Coal Tar Company). | 1.92 | 14.94 | 45.58 | 911 | 57 | Reconstruction, . | Winthrop Avenue to Boston, Revere Beach & Lynn Railroad (Southerly Road), Revere. |
| Revere Beach Parkway, | 841 | 26 | 2,429 | 10.49 | – | 22.66 | – | Tarbinder No. 3, . | 1.94 | 15.03 | 48.18 | 1,170 | 25 | Reconstruction, . | Winthrop Avenue to Railroad Avenue, Traffic Road, Revere. |
| Revere Beach Parkway, | 2,800 | 26 | 8,090 | 1.25 | – | 2.51 | – | Tarvia A, . . . | .41 | 3.44 | 7.20 | 582 | 28 | Surface treatment, | Everett Avenue to Spring Street, Everett. |
| Revere Beach Parkway, | 4,508 | 28 | 14,025 | 1.35 | – | 1.62 | – | Tarine No. 1, . . | .27 | 2.18 | 5.15 | 721 | 88 | Surface treatment, | Fellsway to Saugus Branch Bridge, Everett and Medford. |
| Revere Beach Parkway, | 580 | 28 | 1,805 | 19.17 | – | 19.81 | – | Tarvia A, . . . | 1.93 | 15.91 | 54.89 | 990 | 81 | Reconstruction, . | Fellsway to Station 265, Medford. |
| Revere Beach Reservation. | 2,182 | 40 | 9,700 | .87 | – | 1.63 | – | Tarbinder No. 2 (Independent Coal Tar Company). | .31 | 2.40 | 4.90 | 474 | 85 | Surface treatment, | Shirley Avenue to and including Eliot Circle, Revere. |
| Stony Brook Reservation. | 4,100 | 18 | 8,200 | .98 | – | – | – | Asphaltic road oil No. 6, | .30 | 2.41 | 3.39 | 277 | 58 | Surface treatment, | West Border Road, Boston. |
| Stony Brook Reservation. | 10,975 | 16 | 19,511 | .53 | – | – | – | Asphaltic road oil No. 6, | .18 | 1.42 | 1.95 | 379 | 77 | Surface treatment, | Turtle Pond Road, Boston. |
| Stony Brook Reservation. | 2,100 | 16 | 3,734 | 1.38 | – | – | – | Asphaltic road oil No. 6, | .40 | 3.18 | 4.56 | 170 | 14 | Surface treatment, | Bold Knob Road, Boston. |

[1] Includes excavation of gravel base.

# FINANCIAL STATEMENT.

## Dec. 1, 1916, to Dec. 1, 1917.

| | | | |
|---|---|---|---|
| Metropolitan Parks Loan Fund, | | | $9,049,554 95 |
| Receipts added to loan before June 1, 1901, | | | 198,942 81 |
| | | | $9,248,497 76 |
| **Expenditures.** | | | |
| Middlesex Fells Reservation: — | | | |
| Land, | $50 00 | | |
| | | $50 00 | |
| Weston Bridge: — | | | |
| Construction: — | | | |
| Contract, T. Stuart & Son Company, | $10,882 42 | | |
| Engineering, expenses, | 85 90 | | |
| | | 10,968 32 | |
| Amounts charged to Dec. 1, 1916, | | 9,233,910 81 | |
| | | | 9,244,929 13 |
| Balance, | | | $3,568 63 |

## Metropolitan Parks Loan Fund, Series II.

| | | | |
|---|---|---|---|
| Metropolitan Parks Loan Fund, Series II., | | | $6,844,000 00 |
| Receipts added to loan before June 1, 1901, | | | 29,914 16 |
| | | | $6,873,914 16 |
| **Expenditures.** | | | |
| Blue Hills Parkway: — | | | |
| Land, | $13 00 | | |
| | | $13 00 | |
| Mystic Valley Parkway: — | | | |
| Construction: — | | | |
| Contract, James H. Fannon, | $17,020 68 | | |
| Labor and materials, | 7 22 | | |
| | $17,027 90 | | |
| Engineering: — | | | |
| Pay rolls, | $502 54 | | |
| Expenses, | 22 75 | | |
| | 525 29 | | |
| | | 17,553 19 | |
| Fresh Pond Parkway: — | | | |
| Engineering, pay rolls, | $7 08 | | |
| Legal, | 67 06 | | |
| | | 74 14 | |
| Furnace Brook Parkway: — | | | |
| Land, | $7,500 00 | | |
| Legal, | 15 80 | | |
| Construction: — | | | |
| Labor and materials, | 132 90 | | |
| Engineering, expenses, | 8 05 | | |
| | | 7,656 75 | |
| *Amounts carried forward,* | | $25,297 08 | $6,873,914 16 |

| | | | | | |
|---|---|---|---|---|---|
| *Amounts brought forward,* | | | | $25,297 08 | $6,873,914 16 |
| Winthrop Parkway: — | | | | | |
| Land, | | | $3,544 85 | | |
| Damages assessed, | | | 5,800 00 | | |
| | | | | 9,344 85 | |
| Alewife Brook Parkway: — | | | | | |
| Construction: — | | | | | |
| Contract, Kelly & Sullivan, | | $5,236 81 | | | |
| Labor and materials, | | 1,531 50 | | | |
| | | | $6,768 31 | | |
| | | | | 6,768 31 | |
| Old Colony Parkway: — | | | | | |
| Land, | | | $51,018 00 | | |
| Construction: — | | | | | |
| Contract, Boston Development and Sanitary Company, | | $961 20 | | | |
| Labor and materials, | | 674 71 | | | |
| | | | 1,635 91 | | |
| Engineering: — | | | | | |
| Pay rolls, | | $2,649 34 | | | |
| Expenses, | | 27 80 | | | |
| | | | 2,677 14 | | |
| Legal, | | | 4,001 40 | | |
| Damages assessed, | | | 2,730 00 | | |
| Advertising hearing, | | | 6 05 | | |
| | | | | 62,068 50 | |
| Quannapowitt Parkway: — | | | | | |
| Land, | | | $10 00 | | |
| Engineering, expenses, | | | 35 00 | | |
| Legal, | | | 2 71 | | |
| | | | | 47 71 | |
| Dedham Parkway: — | | | | | |
| Land, | | | $315 00 | | |
| Construction: — | | | | | |
| Labor and materials, | | | 532 92 | | |
| | | | | 847 92 | |
| Hammond Pond Parkway: — | | | | | |
| Land, | | | $7,432 88 | | |
| Engineering, pay rolls, | | | 29 58 | | |
| Legal, | | | 92 30 | | |
| | | | | 7,554 76 | |
| Wellington Bridge: — | | | | | |
| Judgment of Superior Court, settlement of claims, | | | $7,827 24 | | |
| | | | | 7,827 24 | |
| Neponset Bridge: — | | | | | |
| Construction: — | | | | | |
| Contracts: — | | | | | |
| Bay State Dredging Company, | $8,646 51 | | | | |
| Hugh Nawn Contracting Company, | 3,169 94 | | | | |
| | | $11,816 45 | | | |
| Labor and materials, | | 2,902 45 | | | |
| | | | $14,718 90 | | |
| Engineering: — | | | | | |
| Pay rolls, | | $3,983 60 | | | |
| Expenses, | | 284 19 | | | |
| | | | 4,267 79 | | |
| Plans, specifications, license, etc., for construction of drawbridge Scherzer Rolling Lift Bridge Company), | | | 3,500 00 | | |
| Advertising bids, | | | 641 73 | | |
| *Amounts carried forward,* | | | $23,128 42 | $119,756 37 | $6,873,914 16 |

| | | | |
|---|---|---|---|
| *Amounts brought forward,* | $23,128 42 | $119,756 37 | $6,873,914 16 |
| Neponset Bridge — *Con.* | | | |
| Consulting engineers, | 450 00 | | |
| Rent of land, | 250 00 | | |
| Copies of contract, | 95 17 | | |
| Legal, | 45 00 | | |
| Repairs to boat, | 21 28 | | |
| | | 23,989 87 | |
| West Street, Braintree: — | | | |
| Engineering: — | | | |
| Pay rolls, | $1,224 52 | | |
| Expenses, | 49 66 | | |
| | | 1,274 18 | |
| | | $145,020 42 | |
| Amounts charged to Dec. 1, 1916, | | 5,996,943 95 | |
| | | | 6,141,964 37 |
| Balance, | | | $731,949 79 |

## Charles River Basin Loan.

| | | | |
|---|---|---|---|
| Total amount of loan, | | | $4,500,000 00 |
| Receipts added to loan, | | | 9,368 91 |
| | | | $4,509,368 91 |
| **Expenditures.** | | | |
| Engineering: — | | | |
| Chief and assistant engineers, | $148 73 | | |
| Engineering assistants, | 306 32 | | |
| Traveling, | 55 | | |
| Photographs, | 3 12 | | |
| Telephone, | 20 | | |
| Miscellaneous expenses, | 5 50 | | |
| | | $464 42 | |
| Construction, contracts: — | | | |
| Contract, service shed, Archdeacon & Sullivan, | $4,827 74 | | |
| Contract 194, Coleman Brothers, | 5,095 83 | | |
| | | 9,923 57 | |
| Construction, additional: — | | | |
| Professional services, | $345 69 | | |
| Castings, ironwork and metals, | 1 00 | | |
| Paint and coating, | 19 60 | | |
| Lumber, | 95 73 | | |
| Changes in stable, | 1,757 68 | | |
| Mortuary, | 1,490 14 | | |
| Service shed, | 1,165 13 | | |
| Landing, Faneuil, | 945 00 | | |
| Widening Otter Street, | 148 98 | | |
| Fence, Nonantum Road, | 97 61 | | |
| Relaying flagging, dam, | 52 33 | | |
| Rent of land, | 1 00 | | |
| | | 6,119 89 | |
| Real estate: — | | | |
| Settlements, | | 200 00 | |
| | | $16,707 88 | |
| Amounts charged to Dec. 1, 1916, | | 4,453,225 75 | |
| | | | 4,469,933 63 |
| Balance, | | | $39,435 28 |

## Metropolitan Parks Trust Fund.

### *Weston Bridge and Approaches.*

| | | | | |
|---|---|---|---|---|
| Amount of contributions, | | | | $10,000 00 |

Expenditures.

| | | | | |
|---|---|---|---|---|
| Construction: — | | | | |
| Contract, T. Stuart & Son Company, | $7,164 48 | | | |
| Labor and materials, | 1,621 34 | | | |
| | | $8,785 82 | | |
| Engineering: — | | | | |
| Pay rolls, | $359 05 | | | |
| Expenses, | 23 28 | | | |
| | | 382 33 | | |
| Installing lamp posts, | | 598 62 | | |
| Advertising bids, | | 170 40 | | |
| Copies of contract, | | 49 62 | | |
| Landscape architects, services, | | 13 00 | | |
| Refund to city of Newton, | | 15 | | |
| Refund to town of Weston, | | 06 | | |
| | | | | 10,000 00 |
| Balance, | | | | – |

## North Beacon Street Bridge Loan.

| | | | | |
|---|---|---|---|---|
| Chapter 780, Acts of 1914, | | | | $175,000 00 |

Expenditures.

| | | | | |
|---|---|---|---|---|
| Construction: — | | | | |
| Contract, A. G. Tomasello, | $74,007 01 | | | |
| Labor and materials, | 6,776 05 | | | |
| | | $80,783 06 | | |
| Engineering: — | | | | |
| Pay rolls, | $3,050 61 | | | |
| Expenses, | 250 44 | | | |
| | | 3,301 05 | | |
| Consulting engineers, | | 389 04 | | |
| Installing lamp posts, | | 376 00 | | |
| Advertising bids, | | 184 43 | | |
| Copies of contract, | | 48 42 | | |
| | | | $85,082 00 | |
| Amounts charged to Dec. 1, 1916, | | | 86,150 22 | |
| | | | | 171,232 22 |
| Balance, | | | | $3,767 78 |

## Metropolitan Parks System Maintenance.

| | | | |
|---|---|---|---|
| Appropriation, Dec. 1, 1916, to Dec. 1, 1917, | | | $487,336 33 |

Expenditures.

| | | | |
|---|---|---|---|
| General expense: — | | | |
| Police: — | | | |
| Pay rolls, | $128,545 15 | | |
| Miscellaneous, | 7,285 02 | | |
| | | $135,830 17 | |
| Salaries: — | | | |
| Commissioners, | $3,450 00 | | |
| General office, | 10,832 66 | | |
| Engineering department, | 9,759 63 | | |
| | | 24,042 29 | |
| Rent, lighting and care of offices, | | 5,419 16 | |
| Engineering supplies, | | 1,102 38 | |
| Telephones, | | 957 13 | |
| Stationery and printing, | | 813 35 | |
| Annual report, one-half, | | 443 45 | |
| Automobile expense, | | 362 58 | |
| Building steel plan racks, | | 345 06 | |
| Maps and books, | | 254 73 | |
| Postage, etc., | | 250 00 | |
| Filing cabinets, cards, etc., | | 215 79 | |
| Repairing furniture, | | 172 10 | |
| Moving expense, | | 126 25 | |
| Advertising sales, | | 87 53 | |
| Window shades, | | 61 75 | |
| Typewriter supplies and repairs, | | 58 40 | |
| Traveling, | | 44 57 | |
| Registered bonds, | | 35 00 | |
| Recording papers and certified copies, | | 33 05 | |
| Vacuum cleaner, | | 31 50 | |
| Premium on bond, | | 30 00 | |
| Spring water, | | 26 80 | |
| Towel supply, | | 25 78 | |
| Check writer, | | 22 00 | |
| Towel cabinet, | | 21 00 | |
| Press clippings, | | 16 20 | |
| Lamp and cord, | | 13 50 | |
| Carbon paper, | | 13 08 | |
| Office repairs, | | 12 95 | |
| Door checks, | | 12 80 | |
| Bond sales, | | 10 71 | |
| Check sorter, | | 9 79 | |
| Rubber bands, | | 9 00 | |
| Service flag, | | 8 05 | |
| Rubber stamps, | | 7 10 | |
| Mail receiver, | | 6 50 | |
| Door mat, | | 6 15 | |
| Twine, | | 5 81 | |
| Office supplies, | | 5 37 | |
| Gauze, | | 4 38 | |
| Express and freight, | | 4 35 | |
| Hat and coat tree, | | 4 05 | |
| Matches, | | 3 85 | |
| Window glass, | | 3 25 | |
| Checkwriter supplies, | | 3 10 | |
| Soap, | | 2 73 | |
| *Amounts carried forward,* | | $170,974 54 | $487,336 33 |

| | | | | |
|---|---|---|---|---|
| *Amounts brought forward,* | | $170,974 54 | | $487,336 33 |
| Glass key guard, | | 2 60 | | |
| Thermometer, | | 2 10 | | |
| Cleaning clock, | | 2 00 | | |
| Miscellaneous, | | 27 54 | | |
| | | | $171,008 78 | |
| Blue Hills Reservation: — | | | | |
| Labor, | $29,860 58 | | | |
| Teaming, | 97 50 | | | |
| Keep of horses, | 4,957 38 | | | |
| Horses, carriages, automobiles, etc., | 4,347 74 | | | |
| | | $39,263 20 | | |
| Labor and supplies, gypsy and brown-tail moth work, | | 47,587 19 | | |
| General supplies, | | 2,839 43 | | |
| Watering, or its equivalent, | | 1,743 21 | | |
| Fertilizer, | | 411 31 | | |
| Stationery and printing, | | 352 38 | | |
| Water rates, | | 302 74 | | |
| Telephones, | | 271 05 | | |
| Lockers, | | 261 95 | | |
| Potatoes, | | 222 75 | | |
| Pine seedlings, | | 200 00 | | |
| Lighting buildings, | | 148 07 | | |
| Repairs, | | 131 50 | | |
| Express and freight, | | 58 85 | | |
| Water rates, | | 50 45 | | |
| Chimney designs, | | 30 00 | | |
| | | | 93,874 08 | |
| Middlesex Fells Reservation: — | | | | |
| Labor, | $21,081 88 | | | |
| Teaming, | 2,314 00 | | | |
| Keep of horses, | 2,384 23 | | | |
| Horses, carriages, automobiles, etc., | 2,235 90 | | | |
| | | $28,016 01 | | |
| Labor and supplies, gypsy and brown-tail moth work, | | 26,388 38 | | |
| Watering, or its equivalent, | | 5,381 17 | | |
| General supplies, | | 3,032 37 | | |
| Stationery and printing, | | 417 34 | | |
| Fertilizer, | | 322 25 | | |
| Covering piping, | | 270 69 | | |
| Lighting buildings, | | 257 10 | | |
| Telephones, | | 254 05 | | |
| Flag staff, | | 150 00 | | |
| Animals, | | 125 39 | | |
| Traveling, | | 93 77 | | |
| Express and freight, | | 85 30 | | |
| Water rates, | | 43 12 | | |
| Bubbler fountains, | | 42 00 | | |
| Flags, | | 19 05 | | |
| Baseball bases, | | 16 65 | | |
| Laundry, | | 2 55 | | |
| Prescription for deer, | | 2 00 | | |
| Post-office box rent, | | 1 50 | | |
| | | | 64,920 69 | |
| Revere Beach Reservation: — | | | | |
| Labor, | $20,801 03 | | | |
| Teaming, | 7 00 | | | |
| Keep of horses, | 913 76 | | | |
| Horses, carriages, automobiles, etc., | 4,025 84 | | | |
| | | $25,747 63 | | |
| *Amounts carried forward,* | | $25,747 63 | $329,803 55 | $487,336 33 |

| | | | | |
|---|---|---|---|---|
| *Amounts brought forward,* | | $25,747 63 | $329,803 55 | $487,336 33 |
| Street lighting, | | 4,854 13 | | |
| General supplies, | | 3,080 00 | | |
| Watering, or its equivalent, | | 983 31 | | |
| Lighting buildings, | | 482 50 | | |
| Telephones, | | 439 51 | | |
| Water rates, | | 364 61 | | |
| Stationery and printing, | | 249 83 | | |
| Repairs, | | 134 97 | | |
| Express and freight, | | 79 96 | | |
| Report on heating of buildings, | | 50 00 | | |
| Sewer construction, | | 48 99 | | |
| Installing trapeze, | | 23 42 | | |
| Shrubs and trees, | | 22 00 | | |
| Traveling, | | 10 99 | | |
| Sand, | | 10 50 | | |
| | | | 36,582 35 | |
| Stony Brook Reservation: — | | | | |
| Labor, | $2,182 91 | | | |
| Teaming, | 28 00 | | | |
| Keep of horses, | 394 28 | | | |
| Horses, carriages, etc., | 5 00 | | | |
| | | $2,610 19 | | |
| Labor and supplies, gypsy and brown-tail moth work, | | 4,331 68 | | |
| Watering, or its equivalent, | | 849 99 | | |
| Tool plant, | | 544 15 | | |
| General supplies, | | 385 25 | | |
| Fertilizer, | | 167 40 | | |
| Telephones, | | 33 10 | | |
| Repairs, | | 23 76 | | |
| | | | 8,945 52 | |
| Beaver Brook Reservation: — | | | | |
| Labor, | $937 54 | | | |
| Teaming, | 14 00 | | | |
| Keep of horses, | 9 00 | | | |
| Horses, carriages, etc., | 557 43 | | | |
| | | $1,517 97 | | |
| General supplies, | | 482 42 | | |
| Labor and supplies, gypsy and brown-tail moth work, | | 480 60 | | |
| Repairs, | | 71 02 | | |
| Telephones, | | 38 50 | | |
| Water rates, | | 18 80 | | |
| Lighting buildings, | | 10 00 | | |
| Use of sewer, | | 4 50 | | |
| Express and freight, | | 2 15 | | |
| | | | 2,625 96 | |
| Charles River, Upper Division: — | | | | |
| Labor, | $16,360 98 | | | |
| Teaming, | 1,815 88 | | | |
| Keep of horses, | 1,860 46 | | | |
| Horses, carriages, automobiles, etc., | 1,811 98 | | | |
| | | $21,849 30 | | |
| Watering, or its equivalent, | | 9,396 77 | | |
| Labor and supplies, gypsy and brown-tail moth work, | | 8,131 34 | | |
| General supplies, | | 4,337 27 | | |
| Street lighting, | | 3,829 75 | | |
| Shingles, | | 1,939 11 | | |
| Fertilizer, | | 665 00 | | |
| Telephones, | | 323 27 | | |
| *Amounts carried forward,* | | $50,471 81 | $377,957 38 | $487,336 33 |

| | | | | |
|---|---|---|---|---|
| *Amounts brought forward,* | | $50,471 81 | $377,957 38 | $487,336 33 |
| Lighting buildings, | | 291 03 | | |
| Shrubs, | | 217 20 | | |
| Repairs, | | 160 68 | | |
| Stationery and printing, | | 155 72 | | |
| Water rates, | | 145 17 | | |
| Havemeyer bars, | | 110 55 | | |
| Landscape architect's services, | | 62 79 | | |
| Physician's services, | | 60 00 | | |
| Installing plumbing, | | 36 60 | | |
| Traveling, | | 32 81 | | |
| Float, | | 25 00 | | |
| Auto list, | | 15 00 | | |
| Express and freight, | | 14 48 | | |
| Flags, | | 9 00 | | |
| Bubbler fountains, | | 3 05 | | |
| | | | 51,810 89 | |
| Riverside Recreation Grounds: — | | | | |
| Labor, | $2,784 37 | | | |
| Teaming, | 284 00 | | | |
| Horses, carriages, etc., | 73 50 | | | |
| | | $3,141 87 | | |
| Roofing annex building, | | 1,459 00 | | |
| General supplies, | | 1,302 10 | | |
| Lighting buildings, | | 181 60 | | |
| Use of sewer, | | 85 00 | | |
| Telephones, | | 66 39 | | |
| Power, | | 54 15 | | |
| Repairs, | | 51 97 | | |
| Physician's services, | | 25 00 | | |
| Water rates, | | 10 50 | | |
| Express and freight, | | 5 35 | | |
| Tuning piano, | | 3 50 | | |
| Laundry, | | 1 15 | | |
| | | | 6,387 58 | |
| Neponset River Reservation: — | | | | |
| Labor, | $869 60 | | | |
| Teaming, | 26 00 | | | |
| | | $895 60 | | |
| Labor and supplies, gypsy and brown-tail moth work, | | 2,183 92 | | |
| General supplies, | | 78 38 | | |
| Telephones, | | 32 17 | | |
| | | | 3,190 07 | |
| Mystic River Reservation: — | | | | |
| Labor, | $9,223 48 | | | |
| Teaming, | 2,774 43 | | | |
| Horses, carriages, etc., | 28 78 | | | |
| | | $12,026 69 | | |
| General supplies, | | 1,353 93 | | |
| Power for draw, | | 187 50 | | |
| Street lighting, | | 144 20 | | |
| Fence, | | 95 00 | | |
| Repairs, | | 55 79 | | |
| Telephones, | | 36 35 | | |
| Water rates, | | 7 46 | | |
| Stationery, | | 4 37 | | |
| Traveling, | | 30 | | |
| | | | 13,911 59 | |
| *Amounts carried forward,* | | | $453,257 51 | $487,336 33 |

| | | | | |
|---|---|---|---|---|
| *Amounts brought forward,* | | | $453,257 51 | $487,336 33 |
| Lynn Shore Reservation: — | | | | |
| Labor, | $5,183 24 | | | |
| Teaming, | 266 00 | | | |
| Keep of horses, | 129 38 | | | |
| Horses, carriages, etc., | 89 75 | | | |
| | | $5,668 37 | | |
| Street lighting, | | 2,520 00 | | |
| General supplies, | | 1,038 05 | | |
| Repairing sea wall, | | 260 00 | | |
| Watering, or its equivalent, | | 64 63 | | |
| Water rates, | | 28 55 | | |
| Shrubs, | | 15 00 | | |
| | | | 9,594 60 | |
| Quincy Shore Reservation: — | | | | |
| Pay rolls, | $3,729 45 | | | |
| Teaming, | 563 00 | | | |
| Horses, carriages, etc., | 773 85 | | | |
| | | $5,066 30 | | |
| Street lighting, | | 2,107 50 | | |
| General supplies, | | 974 68 | | |
| Sanitary (part), | | 900 00 | | |
| Labor and supplies, gypsy and brown-tail moth work, | | 417 87 | | |
| Architect's services, | | 100 00 | | |
| Telephones, | | 39 30 | | |
| Lighting buildings, | | 34 96 | | |
| Water rates, | | 32 98 | | |
| Turning water off and on, | | 13 30 | | |
| Repairs, | | 7 86 | | |
| Stationery and printing, | | 5 85 | | |
| | | | 9,700 60 | |
| Winthrop Shore Reservation: — | | | | |
| Labor, | | $1,790 56 | | |
| Street lighting, | | 564 63 | | |
| General supplies, | | 276 65 | | |
| Watering, or its equivalent, | | 78 54 | | |
| Water rates, | | 12 90 | | |
| Stationery and printing, | | 5 77 | | |
| | | | 2,729 05 | |
| | | | | 475,281 76 |
| Balance, | | | | $12,054 57 |

## Special Appropriations.

### *Pensions.*

| | | |
|---|---|---|
| Appropriation, | | $5,254 87 |
| Expenditures. | | |
| Geer allowance, | $46 00 | |
| Woodworth allowance, | 364 00 | |
| Mateer pension, | 300 00 | |
| Power pension, | 400 00 | |
| Haddock pension, | 638 75 | |
| Finn pension, | 591 50 | |
| Stewart pension, | 600 00 | |
| Elder pension, | 826 35 | |
| Lord pension, | 683 65 | |
| Kenney pension, | 471 82 | |
| | | 4,922 07 |
| Balance, | | $832 80 |

### *Band Concerts.*

| | | | |
|---|---|---|---|
| Appropriation, | | | $30,000 00 |
| **Expenditures.** | | | |
| Blue Hills Division: — | | | |
| Bands, | | $1,532 95 | |
| Middlesex Fells Division: — | | | |
| Bands, | $4,165 16 | | |
| Labor, | 108 31 | | |
| Signs, | 58 00 | | |
| Recovering awning, | 18 95 | | |
| Lighting band stands, | 10 00 | | |
| Glasses, | 90 | | |
| | | 4,361 32 | |
| Revere Beach Reservation: — | | | |
| Bands, | $7,712 90 | | |
| Lighting band stands, | 52 00 | | |
| Chairs, | 37 50 | | |
| | | 7,802 40 | |
| Charles River, Upper Division: — | | | |
| Bands, | | 2,077 00 | |
| Riverside Recreation Grounds: — | | | |
| Bands, | | 955 70 | |
| Charles River, Lower Basin: — | | | |
| Bands, | $1,094 50 | | |
| Setting up and taking down band stand, | 90 17 | | |
| Lighting band stand, | 33 15 | | |
| | | 1,217 82 | |
| Nahant Beach Parkway: — | | | |
| Bands, | $1,499 40 | | |
| Lighting band stand, | 5 60 | | |
| | | 1,505 00 | |
| Nantasket Beach Reservation: — | | | |
| Bands, | | 6,949 80 | |
| Beaver Brook Reservation: — | | | |
| Bands, | | 326 00 | |
| General office: — | | | |
| Printing schedules, | | 2 76 | |
| | | | 26,730 75 |
| Balance, | | | $3,269 25 |

### *Improving Heating Apparatus, Revere Beach Bath-house.*

| | | |
|---|---|---|
| Appropriation, | | $35,000 00 |
| **Expenditures.** | | |
| Contract, W. A. and H. A. Root, | $7,737 23 | |
| Expended to Dec. 1, 1916, | 27,262 77 | |
| | | 35,000 00 |
| Balance, | | – |

### *Use of Sewerage System, Revere Beach Reservation.*

| | |
|---|---|
| Appropriation, | $10,000 00 |
| Expended, | 10,000 00 |
| Balance, | – |

*Completing Lynn Harbor Playground.*

| | | | |
|---|---|---|---|
| Appropriation, | | | $15,000 00 |
| EXPENDITURES. | | | |
| Grading contract (P. J. McDermott), | $6,231 88 | | |
| Filling material, | 5,666 40 | | |
| | | $11,898 28 | |
| Engineering: — | | | |
| Pay rolls, | $439 54 | | |
| Expenses, | 10 85 | | |
| | | 450 39 | |
| Advertising, | | 119 60 | |
| | | $12,468 27 | |
| Expended to Dec. 1, 1916, | | 2,531 73 | |
| | | | $15,000 00 |
| Balance, | | | – |

*Blue Hills Reservation, Extermination of Moths.*

| | | |
|---|---|---|
| Appropriation, | | $43,000 00 |
| EXPENDITURES. | | |
| Pay rolls, | $3,771 59 | |
| Supplies, | 77 60 | |
| Repairs to gauge, | 20 94 | |
| Teaming, spraying machine, | 14 00 | |
| Water, | 10 96 | |
| | | 3,895 09 |
| Balance, | | $39,104 91 |

*Middlesex Fells Parkway, Granolithic Walks.*

| | | |
|---|---|---|
| Appropriation, | | $1,500 00 |
| EXPENDITURES. | | |
| Engineering, pay rolls, | $7 58 | |
| | | 7 58 |
| Balance, | | $1,492 42 |

*Nonantum Road Extension.*

| | | | |
|---|---|---|---|
| Appropriation, | | | $500 00 |
| EXPENDITURES. | | | |
| Landscape architects: — | | | |
| Services, | $322 75 | | |
| Expenses, | 11 43 | | |
| | | $334 18 | |
| Engineering, pay rolls, | | 65 97 | |
| Photographs, | | 1 23 | |
| | | $401 38 | |
| Expended to Dec. 1, 1916, | | 20 60 | |
| | | | 421 98 |
| Balance, | | | $78 02 |

*Surveys of Boulevard from Middlesex Fells Reservation to Quannapowitt Parkway.*

| | | | |
|---|---|---|---|
| Appropriation, | | | $500 00 |
| EXPENDITURES. | | | |
| Engineering, pay rolls, | | $208 66 | |
| Expended to Dec. 1, 1916, | | 2 08 | |
| | | | 210 74 |
| Balance, | | | $289 26 |

*Wharves and Walls, Broad and Lechmere Canals.*

| | | | |
|---|---|---|---|
| Appropriation, | | | $1,000 00 |
| EXPENDITURES. | | | |
| Engineering, pay rolls, | | $224 08 | |
| | | | 224 08 |
| Balance, | | | $775 92 |

*Bridges over Charles River.*

| | | | |
|---|---|---|---|
| Appropriation, | | | $1,000 00 |
| EXPENDITURES. | | | |
| Engineering: — | | | |
| Pay rolls, | $956 05 | | |
| Expenses, | 12 58 | | |
| | | $968 63 | |
| | | | 968 63 |
| Balance, | | | $31 37 |

*Land on Mystic Valley Parkway.*

| | | | |
|---|---|---|---|
| Appropriation, | | | $5,000 00 |
| Expended, | | | 5,000 00 |
| Balance, | | | – |

*Furnace Brook Parkway Completion.*

| | | | |
|---|---|---|---|
| Appropriation, | | | $8,500 00 |
| EXPENDITURES. | | | |
| Bolts for fence, | | $102 50 | |
| Expended to Dec. 1, 1916, | | 8,386 09 | |
| | | | 8,488 59 |
| Balance, | | | $11 41 |

*Alewife Brook Parkway, Dredging.*

| | | | |
|---|---|---|---|
| Appropriation, | | | $3,000 00 |
| EXPENDITURES. | | | |
| Standard hoisting engine, | | $1,430 60 | |
| Scows, | | 800 00 | |
| Excavating bucket, | | 744 80 | |
| Freight, | | 13 98 | |
| Lumber, | | 10 62 | |
| | | | 3,000 00 |
| Balance, | | | – |

## METROPOLITAN PARKS, BOULEVARD MAINTENANCE.

Appropriation, Dec. 1, 1916, to Dec. 1, 1917, . . . . . $316,953 55

EXPENDITURES.

| | | | |
|---|---|---|---|
| General expenses: — | | | |
| Police: — | | | |
| Pay rolls, | $45,927 25 | | |
| Miscellaneous, | 18,331 21 | | |
| | | $64,258 46 | |
| Salaries: — | | | |
| Commissioners, | $3,450 00 | | |
| Secretary and clerks, | 10,992 34 | | |
| Engineering department, | 9,679 17 | | |
| | | 24,121 51 | |
| Engineering supplies, | | 1,102 17 | |
| Rent, lighting and care of offices, | | 2,689 83 | |
| Erecting partitions, | | 1,033 33 | |
| Expense of moving, | | 920 03 | |
| Telephones, | | 786 63 | |
| Electrical work, | | 565 89 | |
| Stationery and printing, | | 541 41 | |
| Automobile expense, | | 523 69 | |
| Annual report, one-half, | | 443 44 | |
| Maps and books, | | 316 86 | |
| Postage, etc., | | 242 29 | |
| Auditing books, | | 228 50 | |
| Filing cabinets, cards, etc., | | 166 68 | |
| Repairs to furniture, | | 114 62 | |
| Office repairs and alterations, | | 103 30 | |
| Typewriter supplies and repairs, | | 90 25 | |
| Desks, | | 86 40 | |
| Recording papers and certified copies, | | 63 42 | |
| Relaying carpets, | | 63 00 | |
| Towel supply, | | 47 84 | |
| Ice, | | 43 75 | |
| Bond sales, | | 22 81 | |
| Spring water, | | 22 80 | |
| Traveling, | | 18 94 | |
| Examining titles, | | 17 80 | |
| Expert advice on crops, | | 16 25 | |
| House cleaning, | | 16 09 | |
| Cleaning clock, | | 14 50 | |
| Number plates, | | 14 00 | |
| Clippings, | | 10 90 | |
| Wrapping paper, | | 10 57 | |
| Waste baskets, | | 8 50 | |
| Twine, | | 7 50 | |
| Umbrella stand, | | 6 75 | |
| Gauze, | | 6 43 | |
| Care of awnings, | | 6 30 | |
| Soap, | | 6 27 | |
| Lamps, | | 5 58 | |
| Rubber stamps, | | 5 10 | |
| Office supplies, | | 3 95 | |
| Germicide, | | 3 85 | |
| Keys, | | 3 70 | |
| Flags, | | 2 80 | |
| Protectograph ink, | | 2 45 | |
| Repairing lights, | | 2 20 | |
| *Amounts carried forward,* | | $98,789 34 | $316,953 55 |

| | | | | |
|---|---|---|---|---|
| *Amounts brought forward,* | | $98,789 34 | | $316,953 55 |
| Inspecting adding machine, | | 2 10 | | |
| Matches, | | 1 85 | | |
| Advertising sale, | | 1 50 | | |
| Express and freight, | | 1 47 | | |
| Miscellaneous, | | 4 31 | | |
| | | | $98,800 57 | |
| Blue Hills Parkway: — | | | | |
| Labor, | $4,247 80 | | | |
| Teaming, | 36 00 | | | |
| Keep of horses, | 378 76 | | | |
| Horses, carriages, automobiles, etc., | 822 10 | | | |
| | | $5,484 66 | | |
| Street lighting, | | 2,151 56 | | |
| Watering, or its equivalent, | | 1,873 42 | | |
| Labor and supplies, gypsy and brown-tail moth work, | | 542 34 | | |
| General supplies, | | 407 06 | | |
| Water rates, | | 41 09 | | |
| Lighting buildings, | | 9 00 | | |
| | | | 10,509 13 | |
| Middlesex Fells Parkway: — | | | | |
| Labor, | $9,793 28 | | | |
| Teaming, | 2,332 25 | | | |
| Keep of horses, | 24 00 | | | |
| Horses, carriages, automobiles, etc., | 1,884 46 | | | |
| | | $14,033 99 | | |
| Watering, or its equivalent, | | 10,275 60 | | |
| Street lighting, | | 10,144 29 | | |
| General supplies, | | 2,354 15 | | |
| Labor and supplies, gypsy and brown-tail moth work, | | 684 57 | | |
| Edgestone, | | 630 00 | | |
| Trees and shrubs, | | 300 83 | | |
| Changing heating plant, | | 223 00 | | |
| Telephones, | | 66 20 | | |
| Row boat, | | 46 00 | | |
| Sewer brick, | | 42 00 | | |
| Water rates, | | 9 50 | | |
| Lighting buildings, | | 7 70 | | |
| Express and freight, | | 3 46 | | |
| | | | 38,821 29 | |
| Mystic Valley Parkway: — | | | | |
| Labor, | $9,065 85 | | | |
| Teaming, | 2,754 00 | | | |
| Horses, carriages, automobiles, etc., | 1,675 22 | | | |
| | | $13,495 07 | | |
| Watering, or its equivalent, | | 13,883 37 | | |
| Street lighting, | | 7,009 95 | | |
| General supplies, | | 2,195 29 | | |
| Labor and supplies, gypsy and brown-tail moth work, | | 1,276 16 | | |
| Shrubs, | | 204 00 | | |
| Fertilizer, | | 183 75 | | |
| Telephones, | | 110 88 | | |
| Row boat, | | 42 00 | | |
| Express and freight, | | 39 28 | | |
| Repairs, | | 11 89 | | |
| Water rates, | | 10 40 | | |
| Traveling, | | 1 27 | | |
| Stationery, | | 45 | | |
| | | | 38,463 76 | |
| *Amounts carried forward,* | | | $186,594 75 | $316,953 55 |

| | | | | |
|---|---|---|---|---|
| *Amounts brought forward,* | | | $186,594 75 | $316,953 55 |
| Revere Beach Parkway: — | | | | |
| Pay rolls, | $19,102 70 | | | |
| Teaming, | 43 63 | | | |
| Keep of horses, | 111 51 | | | |
| Horses, carriages, automobiles, etc., | 1,815 10 | | | |
| | | $21,072 94 | | |
| Watering, or its equivalent, | | 8,588 34 | | |
| Street lighting, | | 7,736 13 | | |
| General supplies, | | 2,314 43 | | |
| Labor and supplies, gypsy and brown-tail moth work, | | 473 16 | | |
| Power for draw, | | 357 10 | | |
| Repairs, | | 146 49 | | |
| Drinking fountain, | | 45 00 | | |
| Trees and shrubs, | | 29 44 | | |
| Express and freight, | | 25 42 | | |
| Chair swings, | | 24 69 | | |
| Water rates, | | 24 57 | | |
| Installing safety devices, | | 21 64 | | |
| Boiler inspection, | | 15 00 | | |
| Stationery, | | 1 88 | | |
| | | | 40,876 23 | |
| Neponset River Parkway: — | | | | |
| Labor, | | $841 00 | | |
| Labor and supplies, gypsy and brown-tail moth work, | | 223 87 | | |
| General supplies, | | 132 60 | | |
| | | | 1,197 47 | |
| Nahant Beach Parkway: — | | | | |
| Labor, | $5 240 54 | | | |
| Keep of horses, | 318 95 | | | |
| Horses, carriages, etc., | 78 69 | | | |
| | | $5,638 18 | | |
| Street lighting, | | 980 00 | | |
| Watering, or its equivalent, | | 630 05 | | |
| General supplies, | | 188 90 | | |
| Compensation for injuries, | | 23 90 | | |
| Shrubs, | | 13 50 | | |
| Express, | | 25 | | |
| | | | 7,474 78 | |
| Fresh Pond Parkway: — | | | | |
| Labor, | | $1,273 82 | | |
| Watering, or its equivalent, | | 950 62 | | |
| Street lighting, | | 420 00 | | |
| Crushed stone, | | 372 72 | | |
| Labor and supplies, gypsy and brown-tail moth work, | | 272 22 | | |
| General supplies, | | 13 30 | | |
| | | | 3,302 68 | |
| Furnace Brook Parkway: — | | | | |
| Labor, | $4,504 78 | | | |
| Teaming, | 447 50 | | | |
| Horses, carriages, etc., | 449 89 | | | |
| | | $5,402 17 | | |
| Street lighting, | | 2,311 52 | | |
| Watering, or its equivalent, | | 1,981 99 | | |
| Labor and supplies, gypsy and brown-tail moth work, | | 892 93 | | |
| Loam, | | 537 60 | | |
| General supplies, | | 321 66 | | |
| Water rates, | | 14 00 | | |
| Lighting buildings, | | 8 25 | | |
| Repairs, | | 2 30 | | |
| | | | 11,472 42 | |
| *Amounts carried forward,* | | | $250,918 33 | $316,953 55 |

| | | | | |
|---|---|---|---|---|
| *Amounts brought forward,* | | | $250,918 33 | $316,953 55 |
| Winthrop Parkway: — | | | | |
| Labor, | | $254 65 | | |
| Street lighting, | | 488 97 | | |
| Watering, or its equivalent, | | 54 09 | | |
| | | | 797 71 | |
| Lynnway: — | | | | |
| Labor, | | $4,607 36 | | |
| Power for lighting and operating draw, | | 448 35 | | |
| Repairs, | | 333 47 | | |
| Street lighting, | | 192 50 | | |
| General supplies, | | 131 21 | | |
| Watering, or its equivalent, | | 68 48 | | |
| Installing safety devices, | | 24 43 | | |
| Traveling, | | 3 70 | | |
| Stationery, | | 2 78 | | |
| | | | 5,812 28 | |
| Lynn Fells Parkway: — | | | | |
| Labor, | $2,913 96 | | | |
| Teaming, | 311 00 | | | |
| Horses, carriages, etc., | 10 48 | | | |
| | | $3,235 44 | | |
| Street lighting, | | 1,930 01 | | |
| Watering, or its equivalent, | | 656 86 | | |
| Loam, | | 369 00 | | |
| General supplies, | | 236 35 | | |
| Bound stones, | | 118 75 | | |
| Fertilizer, | | 52 50 | | |
| Labor and supplies, gypsy and brown-tail moth work, | | 43 41 | | |
| Sewer brick, | | 30 00 | | |
| | | | 6,672 32 | |
| Middlesex Fells Roads: — | | | | |
| Labor, | $2,024 38 | | | |
| Teaming, | 396 50 | | | |
| Horses, carriages, etc., | 8 70 | | | |
| | | $2,429 58 | | |
| Watering, or its equivalent, | | 13,587 52 | | |
| Street lighting, | | 2,252 12 | | |
| General supplies, | | 374 00 | | |
| Traveling, | | 1 00 | | |
| Post-office box rent, | | 75 | | |
| Express, | | 25 | | |
| | | | 18,645 22 | |
| Alewife Brook Parkway: — | | | | |
| Labor, | $7,862 76 | | | |
| Teaming, | 2,409 53 | | | |
| Horses, carriages, etc., | 382 00 | | | |
| | | $10,654 29 | | |
| General supplies, | | 3,100 40 | | |
| Watering, or its equivalent, | | 1,491 98 | | |
| Street lighting, | | 1,028 79 | | |
| Retaining wall and curb, | | 902 54 | | |
| Edgestone, | | 485 00 | | |
| Fertilizer, | | 308 75 | | |
| Labor and supplies, gypsy and brown-tail moth work, | | 166 39 | | |
| Landscape architects: — | | | | |
| Services, | $25 00 | | | |
| Expenses, | 1 80 | | | |
| | | 26 80 | | |
| Water rates, | | 3 82 | | |
| | | | 18,168 76 | |
| *Amounts carried forward,* | | | $301,014 62 | $316,953 55 |

| | | | | |
|---|---|---|---|---|
| *Amounts brought forward,* | | | $301,014 62 | $316,953 55 |
| Old Colony Parkway: — | | | | |
| Labor, | | $98 70 | | |
| | | | 98 70 | |
| Woburn Parkway: — | | | | |
| Labor, | $3,271 20 | | | |
| Teaming, | 523 00 | | | |
| Horses, carriages, etc., | 254 52 | | | |
| | | $4,048 72 | | |
| Street lighting, | | 1,284 93 | | |
| General supplies, | | 980 59 | | |
| Street watering, or its equivalent, | | 876 51 | | |
| Loam, | | 570 00 | | |
| Labor and supplies, gypsy and brown-tail moth work, | | 362 67 | | |
| Stationery, | | 6 00 | | |
| | | | 8,129 42 | |
| West Roxbury Parkway: — | | | | |
| Labor and supplies, gypsy and brown-tail moth work, | | $1,018 72 | | |
| | | | 1,018 72 | |
| Hammond Pond Parkway: — | | | | |
| Labor, | $991 58 | | | |
| Teaming, | 9 00 | | | |
| | | $1,000 58 | | |
| Labor and supplies, gypsy and brown-tail moth work, | | 3,063 61 | | |
| Bound stones, | | 185 00 | | |
| General supplies, | | 16 99 | | |
| | | | 4,266 18 | |
| | | | | 314,527 64 |
| Balance, Dec. 1, 1917, | | | | $2,425 91 |

## Charles River Basin Maintenance.

### *Maintenance of Park and Water Areas.*

| | | | | |
|---|---|---|---|---|
| Appropriation, Dec. 1, 1916, to Dec. 1, 1917, | | | | $95,983 00 |
| Expenditures. | | | | |
| Labor, | | $23,281 75 | | |
| Teaming, | | 236 00 | | |
| Keep of horses, | | 1,068 32 | | |
| Horses, carriages, automobiles, etc., | | 305 18 | | |
| | | | $24,891 25 | |
| Police: — | | | | |
| Pay rolls, | | $43,314 98 | | |
| Miscellaneous, | | 4,095 35 | | |
| | | | 47,410 33 | |
| Street lighting, | | | 4,449 73 | |
| General supplies, | | | 3,924 13 | |
| Relaying granolithic walk, | | | 1,956 22 | |
| Watering, or its equivalent, | | | 1,273 93 | |
| Lighting buildings, | | | 869 13 | |
| Portable house, | | | 822 50 | |
| Repairs to dolphins, | | | 623 66 | |
| Water rates, | | | 560 82 | |
| Repairs, | | | 262 57 | |
| Telephones, | | | 251 86 | |
| Stationery and printing, | | | 113 52 | |
| Recovering boat covers, | | | 99 55 | |
| Trees and shrubs, | | | 98 20 | |
| *Amounts carried forward,* | | | $87,607 40 | $95,983 00 |

| | | | |
|---|---|---|---|
| *Amounts brought forward,* | | $87,607 40 | $95,983 00 |
| Installing heating apparatus, | | 82 00 | |
| Pennants, | | 39 60 | |
| Architect, | | 10 00 | |
| Directory, | | 6 00 | |
| Megaphone, | | 6 00 | |
| Express, | | 5 31 | |
| | | | 87,756 31 |
| Balance, Dec. 1, 1917, | | | $8,226 69 |

## *Maintenance and Operation of Locks, Gates and Drawbridges.*

| | | | |
|---|---|---|---|
| Appropriation, Dec. 1, 1916, to Dec. 1, 1917, | | | $58,697 00 |
| EXPENDITURES. | | | |
| Labor, pay rolls, | | $38,180 15 | |
| Ice breaking, | | 6,525 90 | |
| Heating, | | 3,263 96 | |
| Repairs to machinery, | | 1,980 24 | |
| Power, | | 1,525 45 | |
| Painting lock gates, | | 1,368 44 | |
| Replanking drawbridge, | | 736 78 | |
| General supplies, | | 709 18 | |
| Lighting lock-gate houses and sluices, | | 653 35 | |
| Boiler-smoke preventers, | | 400 00 | |
| Telephones, | | 79 63 | |
| Stationery and printing, | | 70 61 | |
| Automobile parts and repairs, | | 59 16 | |
| Installing safety devices, | | 24 44 | |
| Laundry, | | 17 14 | |
| Boiler inspection, | | 12 00 | |
| Water rates, | | 6 70 | |
| Towel supply, | | 2 88 | |
| Traveling, | | 35 | |
| Express, | | 25 | |
| | | | 55,616 61 |
| Balance, Dec. 1, 1917, | | | $3,080 39 |

## NANTASKET BEACH MAINTENANCE.

| | | | |
|---|---|---|---|
| Appropriation, Dec. 1, 1916, to Dec. 1, 1917, | | | $45,361 65 |
| Labor, | $12,182 26 | | |
| Teaming, | 205 50 | | |
| Keep of horses, | 409 57 | | |
| Horses, carriages, automobiles, etc., | 670 10 | | |
| | | $13,467 43 | |
| Police: — | | | |
| Pay rolls, | $16,139 92 | | |
| Miscellaneous, | 4,220 22 | | |
| | | 20,360 14 | |
| Watering, or its equivalent, | | 5,348 05 | |
| General supplies, | | 2,504 02 | |
| Street lighting, | | 1,548 24 | |
| Water rates, | | 430 32 | |
| Rent, superintendent's house, | | 420 00 | |
| Trees and shrubs, | | 274 26 | |
| *Amounts carried forward,* | | $44,352 46 | $45,361 65 |

| | | |
|---|---|---|
| *Amounts brought forward,* | $44,352 46 | $45,361 65 |
| Stationery and printing, | 188 45 | |
| Telephones, | 165 82 | |
| Express and freight, | 118 80 | |
| Traveling, | 67 09 | |
| Painting, | 31 20 | |
| Repairs, | 1 50 | |
| Post-office box rent, | 1 40 | |
| Drain pipe rental, | 1 00 | |
| | | 44,927 72 |
| Balance, Dec. 1, 1917, | | $433 93 |

## Wellington Bridge Maintenance.

| | | |
|---|---|---|
| Appropriation, Dec. 1, 1916, to Dec. 1, 1917, | | $11,778 62 |
| Labor, | $8,960 90 | |
| Street lighting, | 1,434 68 | |
| Repairs, | 292 75 | |
| General supplies, | 253 97 | |
| Telephones, | 80 92 | |
| Installing safety devices, | 24 44 | |
| Water rates, | 7 50 | |
| Stationery and printing, | 4 17 | |
| Traveling, | 20 | |
| | | 11,059 53 |
| Balance, Dec. 1, 1917, | | $719 09 |

## Metropolitan Parks Expense Fund.

### *Receipts, Dec. 1, 1916, to Dec. 1, 1917.*

| | | |
|---|---|---|
| Bath-houses: — | | |
| Revere Beach, sale of bath tickets, | $42,772 45 | |
| Nantasket Beach, sale of bath tickets, | 10,969 05 | |
| Nahant Beach, sale of bath tickets, | 10,488 80 | |
| Blue Hills, sale of bath tickets, | 327 50 | |
| | | $73,557 80 |
| Rentals: — | | |
| Buildings, | $18,096 64 | |
| Lunch stands and refectories, | 3,099 33 | |
| Roller-coaster and merry-go-round, | 2,100 00 | |
| Street railway locations, | 1,563 74 | |
| Houses, | 1,155 04 | |
| Land, | 866 83 | |
| Telephone ducts, | 687 99 | |
| Boathouse sites, | 640 00 | |
| Day rental, Riverside Recreation Grounds, | 600 00 | |
| Boats, | 481 35 | |
| Photographic stands, | 250 00 | |
| Automobile stands, | 150 00 | |
| Gas main location, | 100 00 | |
| Pasture, | 100 00 | |
| | | 29,890 92 |
| Sales: — | | |
| Wood, | $3,394 33 | |
| Old metal, rubber, lumber, rags, etc., | 1,081 78 | |
| Grass, | 460 00 | |
| *Amounts carried forward,* | $4,936 11 | $103,448 72 |

| | | |
|---|---|---|
| *Amounts brought forward,* | $4,936 11 | $103,448 72 |
| Sales — *Con.* | | |
| Buildings, | 302 27 | |
| Posts, | 236 15 | |
| Vegetables, | 217 25 | |
| Sanitary napkins, | 131 30 | |
| Coal, | 79 80 | |
| Barrels, | 70 40 | |
| Hay, | 37 50 | |
| Articles found on reservations, | 34 37 | |
| Land, | 33 00 | |
| Shrubs, | 16 77 | |
| Ice, | 16 48 | |
| Railroad tickets, | 15 22 | |
| Awnings, | 15 00 | |
| Plans and photographs, | 8 57 | |
| Miscellaneous, | 10 46 | |
| | | 6,160 65 |
| Town of Watertown (paving approach to North Beacon Street Bridge), | | 4,354 50 |
| Court fines, | | 5,410 50 |
| Steamer chair and umbrella privilege, | | 4,475 75 |
| Income on money invested, | | 3,181 33 |
| Boat-letting privilege, etc., | | 1,000 00 |
| Reimbursement for police expense (strike duty), | | 630 48 |
| Reimbursement for work performed: — | | |
| Laying pavement, Charles River Dam, | $100 84 | |
| Boston Elevated Railway Company (drainage work), | 364 26 | |
| Brick wall construction, | 26 37 | |
| Sodding, | 10 93 | |
| | | 502 40 |
| Refunds and credits, | | 459 97 |
| Contribution to cost of repairs (Whitmore-Brooks entrance), | | 400 00 |
| Contribution to cost of entrances, | | 322 43 |
| Study of location for gas main, | | 250 00 |
| Electric light and water furnished, | | 213 82 |
| Money found on reservations, | | 203 25 |
| Payment for damage to property, | | 140 20 |
| Removal of garbage, | | 140 00 |
| Dead men permit, | | 100 00 |
| Replaced keys and checks, | | 52 75 |
| Telephone tolls, | | 45 15 |
| Burro privilege, | | 35 00 |
| Pay closets, | | 28 95 |
| Newspaper licenses, | | 20 00 |
| Police fine, | | 17 93 |
| Payment for lost equipment, | | 16 00 |
| License fee (building encroachment), | | 10 00 |
| Miscellaneous, | | 1 22 |
| | | $131,621 00 |
| Balance, Dec. 1, 1916, | | 105,218 44 |
| | | $236,839 44 |

*Expenditures.*

| | | | |
|---|---|---|---|
| General expense: — | | | |
| Advertising privileges, | | $72 25 | |
| | | | $72 25 |
| Police: — | | | |
| Patrol wagon, | | $2,310 00 | |
| Motor cycles, | | 528 55 | |
| Horse, | | 350 00 | |
| Testing speedometers, | | 295 30 | |
| Uniforms, | | 239 48 | |
| Police expense (strike duty), | | 90 00 | |
| | | | 3,813 33 |
| Engineering: — | | | |
| Signs, | | $23 15 | |
| Telephones, | | 11 80 | |
| | | | 34 95 |
| Blue Hills Reservation: — | | | |
| Addition to headquarters: — | | | |
| Contract (balance), | $10,351 11 | | |
| Heating (contract), | 1,286 00 | | |
| Architects, | 401 32 | | |
| | | $12,038 43 | |
| Flags, | | 21 34 | |
| Towels, | | 6 58 | |
| Pump, | | 4 95 | |
| Plumbing (refectory), | | 4 35 | |
| Keys, | | 4 14 | |
| Rowlocks, | | 3 36 | |
| Bath tickets, | | 76 | |
| | | | 12,083 91 |
| Middlesex Fells Reservation: — | | | |
| Driveway to sheepfold, | | $493 79 | |
| Lost money returned to owner, | | 169 26 | |
| Flags, | | 85 44 | |
| Repairs to buildings, | | 8 19 | |
| | | | 756 68 |
| Revere Beach Reservation: — | | | |
| Bath-house: — | | | |
| Pay rolls, | $22,879 13 | | |
| Bathing suits, | 5,679 96 | | |
| Coal, | 2,615 70 | | |
| Engine room, | 1,246 50 | | |
| Lighting, | 819 72 | | |
| Towels, | 644 24 | | |
| Work on boiler house, | 611 61 | | |
| Stationery and printing, | 493 65 | | |
| Repairs, | 434 21 | | |
| Stockings, | 390 00 | | |
| Water rates, | 277 00 | | |
| Bathing caps, | 255 00 | | |
| Soap, etc., | 253 13 | | |
| Medicines and attendance, | 206 10 | | |
| Toilet paper, | 149 50 | | |
| Ice, | 103 53 | | |
| Hardware, | 101 45 | | |
| Soda, | 90 70 | | |
| Neck rings, | 90 00 | | |
| Laundry baskets, | 62 24 | | |
| *Amounts carried forward,* | $37,403 37 | | $16,761 12 |

| | | | |
|---|---|---|---|
| *Amounts brought forward,* | $37,403 37 | | $16,761 12 |
| Bath-house — *Con.* | | | |
| Telephones, | 44 89 | | |
| Findings, | 44 64 | | |
| Brooms, | 40 00 | | |
| Brushes, | 38 48 | | |
| Mirrors, | 37 00 | | |
| Metal polish, | 36 00 | | |
| Lunches, | 33 75 | | |
| Drilling, | 32 60 | | |
| Tickets, etc., | 31 66 | | |
| Traveling, | 30 61 | | |
| Architects, | 25 00 | | |
| Oil, | 20 00 | | |
| Frames, | 19 00 | | |
| Pails, | 17 25 | | |
| Dials, | 15 24 | | |
| Brushes and combs, | 15 14 | | |
| Chairs, | 15 00 | | |
| Lumber, | 14 25 | | |
| Flags, | 13 50 | | |
| Paint, | 11 11 | | |
| Blanket, | 9 00 | | |
| Spring water, | 8 00 | | |
| Alcohol, | 7 50 | | |
| Gauze, | 7 15 | | |
| Uniforms, | 6 50 | | |
| Dust pans, | 5 80 | | |
| Mop handles, | 5 25 | | |
| Step ladder, | 4 80 | | |
| Dusters, | 4 04 | | |
| Oars, | 3 58 | | |
| Matches, | 3 15 | | |
| Dipper, | 3 00 | | |
| Tarred felt, | 2 09 | | |
| Postage, | 2 00 | | |
| Express, | 1 88 | | |
| Wadding, | 1 50 | | |
| Ash can covers, | 1 40 | | |
| | | $38,015 13 | |
| Paint shop and brick wall (Sagamore Street), | | 1,859 32 | |
| Waterproofing boiler house, | | 522 93 | |
| Use of pump, | | 62 50 | |
| Lighting boiler room and service building, | | 26 49 | |
| Refund, on account of deposit for entrance, | | 26 25 | |
| Architects, | | 25 00 | |
| Removing poles, | | 4 99 | |
| | | | 40,542 61 |
| Stony Brook Reservation: — | | | |
| Land, | | $129 37 | |
| Repairs to buildings, | | 50 20 | |
| | | | 179 57 |
| Charles River, Upper Division: — | | | |
| North Beacon Street Bridge, paving approach, | | $4,354 50 | |
| Playground, | | 898 96 | |
| Plans and surveys, Hammond Pond Parkway, | | 231 99 | |
| Filling approaches to Weston Bridge, | | 81 68 | |
| Flags, | | 75 06 | |
| Water rates, | | 40 25 | |
| *Amounts carried forward,* | | $5,682 44 | $57,483 30 |

| | | | |
|---|---|---|---|
| *Amounts brought forward,* | | $5,682 44 | $57,483 30 |
| Landscape architects: — | | | |
| Services, | $32 40 | | |
| Expenses, | 2 63 | | |
| | | 35 03 | |
| Boat equipment, | | 12 68 | |
| Loam and gravel, | | 1 00 | |
| | | | 5,731 15 |
| Riverside Recreation Grounds: — | | | |
| Use of sewer, | | $112 26 | |
| Water rates, | | 51 00 | |
| Telephones, | | 20 71 | |
| Pay roll, | | 16 50 | |
| Power, | | 8 00 | |
| Lighting buildings, | | 3 25 | |
| Tickets, | | 2 70 | |
| Express, | | 50 | |
| Miscellaneous, | | 13 | |
| | | | 215 05 |
| Charles River, Lower Basin: — | | | |
| Refund on teaming permit to contractor, | | $3,321 89 | |
| Brick wall, | | 210 00 | |
| Heating comfort station, | | 110 50 | |
| Relaying pavement, | | 100 84 | |
| Repairs to fence, | | 100 00 | |
| Telephone tolls, | | 65 | |
| | | | 3,843 88 |
| Blue Hills Parkway: — | | | |
| Land (part payment), | | $67 12 | |
| | | | 67 12 |
| Middlesex Fells Parkway: — | | | |
| Construction of entrance, | | $110 41 | |
| Flagging bridge, | | 51 57 | |
| Refund on account of deposit for entrance, | | 28 63 | |
| Appraising property, | | 5 00 | |
| Telephone tolls, | | 1 25 | |
| | | | 196 86 |
| Mystic Valley Parkway: — | | | |
| Taxes on land (part), | | $44 55 | |
| | | | 44 55 |
| Revere Beach Parkway: — | | | |
| Repairs and painting bridge, | | $492 15 | |
| Construction of entrance, | | 19 00 | |
| | | | 511 15 |
| Nahant Beach Parkway: — | | | |
| Bath-house: — | | | |
| Pay rolls, | $5,253 00 | | |
| Bathing suits, | 1,139 69 | | |
| Water rates, | 452 46 | | |
| Lighting, | 255 68 | | |
| Coal, | 235 00 | | |
| Stockings, | 195 00 | | |
| Toilet paper, | 177 40 | | |
| Lung motor, | 135 00 | | |
| Paint, | 132 78 | | |
| Repairs, | 125 44 | | |
| Lumber, etc., | 114 82 | | |
| Telephones, | 85 43 | | |
| Bathing caps, | 75 00 | | |
| Flags, | 61 87 | | |
| *Amounts carried forward,* | $8,438 57 | | $68,093 06 |

| | | | |
|---|---|---|---|
| *Amounts brought forward,* | $8,438 57 | | $68,093 06 |
| Bath-house — *Con.* | | | |
| Towels, | 53 76 | | |
| Hardware, | 45 19 | | |
| Neck rings, | 45 00 | | |
| Engine room, | 39 80 | | |
| Tickets, etc., | 37 50 | | |
| Laundry, | 19 51 | | |
| Brushes, | 18 91 | | |
| Ice, | 17 25 | | |
| Findings, | 16 38 | | |
| Stationery and printing, | 16 12 | | |
| Brooms, | 13 00 | | |
| Medicines and attendance, | 11 71 | | |
| Brushes and combs, | 10 11 | | |
| Uniform, manager, | 9 75 | | |
| Garage, | 7 15 | | |
| Cleaning cesspool, | 5 00 | | |
| Dust pans, | 4 25 | | |
| Pillows, | 3 38 | | |
| Dusters, | 2 85 | | |
| Ring buoys, | 2 44 | | |
| Hygienic cups, | 2 00 | | |
| Clock keys, | 1 10 | | |
| | | $8,820 73 | |
| Grading playground, | | 353 84 | |
| | | | 9,174 57 |
| Furnace Brook Parkway: — | | | |
| Rent of concrete mixer, | | $28 50 | |
| | | | 28 50 |
| Alewife Brook Parkway: — | | | |
| Grading, surfacing, etc., contract, Kelly & Sullivan, | | $789 75 | |
| Dredging, | | 75 30 | |
| Landscape architects: — | | | |
| Services, | $29 10 | | |
| Expenses, | 50 | | |
| | | 29 60 | |
| Equipment for boat, | | 8 46 | |
| | | | 903 11 |
| Old Colony Parkway: — | | | |
| Architects, | | $15 00 | |
| | | | 15 00 |
| Hammond Pond Parkway: — | | | |
| Report and plans of takings, | | $100 00 | |
| | | | 100 00 |
| Nantasket Beach Reservation: — | | | |
| Bath-house: — | | | |
| Pay rolls, | $9,519 22 | | |
| Coal, | 2,078 13 | | |
| Bathing suits, | 1,746 33 | | |
| Repairs, | 818 41 | | |
| Water rates, | 732 42 | | |
| Towels, | 657 37 | | |
| Engine room, | 576 16 | | |
| Stockings, | 292 50 | | |
| Hardware, | 256 90 | | |
| Medicines and attendance, | 117 13 | | |
| Lighting, | 110 19 | | |
| Bathing caps, | 90 00 | | |
| Ice, | 62 42 | | |
| Soap, | 61 42 | | |
| *Amounts carried forward,* | $17,118 60 | | $78,314 24 |

| | | | | |
|---|---|---|---|---|
| *Amounts brought forward,* | $17,118 60 | | $78,314 24 | |
| Bath-house — *Con.* | | | | |
| Canvas trucks, | 58 65 | | | |
| Employee's suits and caps, | 50 38 | | | |
| Neck rings, | 45 00 | | | |
| Stationery and printing, | 35 12 | | | |
| Cleaning cesspool, | 30 00 | | | |
| Clock, | 25 00 | | | |
| Folding chairs, | 23 00 | | | |
| Telephones, | 22 00 | | | |
| Baskets, | 19 20 | | | |
| Tickets, etc., | 14 32 | | | |
| Metal polish, | 12 27 | | | |
| Coal barrow, | 10 50 | | | |
| Uniform, manager, | 9 75 | | | |
| Badges and checks, | 9 00 | | | |
| Wringers, | 7 71 | | | |
| Findings, | 7 51 | | | |
| Typewriter chair, | 6 30 | | | |
| Grills, | 6 00 | | | |
| Flags, | 5 26 | | | |
| Wadding, | 4 05 | | | |
| Demurrage, | 4 00 | | | |
| Water cooler, | 3 90 | | | |
| Dust pans, | 2 20 | | | |
| Whisk brooms, | 1 00 | | | |
| Express, | 25 | | | |
| | | $17,530 97 | | |
| New sanitary (Jonsberg contract), | | 12,237 62 | | |
| Repairs and alterations in buildings, | | 7,839 27 | | |
| Steam mains (Barber contract), | | 2,754 85 | | |
| Extension of drain, | | 1,442 71 | | |
| Granolithic driveway, | | 540 97 | | |
| Lighting pavilion, | | 459 46 | | |
| Electrical work, hotel, | | 507 77 | | |
| Architects, | | 429 63 | | |
| Sea wall fence, | | 222 41 | | |
| Electrical engineers, steam piping, | | 175 00 | | |
| Laying conduits, | | 149 18 | | |
| Moving over stable, | | 134 01 | | |
| Landscape architects: — | | | | |
| Services, | $70 94 | | | |
| Expenses, | 4 60 | | | |
| | | 75 54 | | |
| Premium on bond, | | 66 00 | | |
| Flags, | | 64 02 | | |
| Apportioning steam charges, | | 35 00 | | |
| Settlement for injuries, | | 34 25 | | |
| Slot machines, | | 19 60 | | |
| Paper cabinets, | | 18 72 | | |
| Mirrors, | | 14 28 | | |
| | | | 44,751 26 | |
| | | | | $123,065 50 |
| Balance, Dec. 1, 1917, | | | | $113,773 94 |

## Metropolitan Parks Trust Fund.

| | |
|---|---|
| Balance, Dec. 1, 1917, | $1,589 35 |

*Summary of General Expense for Year ending Nov. 30, 1917.*

| | Parks System Maintenance. | Parks Boulevard Maintenance. | Parks Expense Fund. | Parks Loan Fund. | Parks Loan Fund, Series II. | Total. |
|---|---|---|---|---|---|---|
| Commissioners, | $3,450 00 | $3,450 00 | – | – | – | $6,900 00 |
| Office salaries, | 10,832 66 | 10,992 34 | – | – | – | 21,825 00 |
| Engineering, | 10,862 01 | 10,781 34 | $34 95 | – | – | 21,678 30 |
| Police, | 135,830 17 | 64,258 46 | 3,813 33 | – | – | 203,901 96 |
| Rent and care, Boston office, | 5,333 36 | 2,535 43 | – | – | – | 7,868 79 |
| Lighting, Boston office, | 85 80 | 154 40 | – | – | – | 240 20 |
| Miscellaneous, | 4,614 78 | 6,628 60 | 72 25 | – | – | 11,315 63 |
| Totals, | $171,008 78 | $98,800 57 | $3,920 53 | – | – | $273,729 88 |

*Summary of Expenditures for Year ending Nov. 30, 1917.*

| | Metropolitan Parks Loan Fund. | Metropolitan Parks Loan Fund, Series II. | Metropolitan Parks System Maintenance. | Metropolitan Parks Boulevard Maintenance. | Metropolitan Parks Expense Fund. | Special Appropriations, Repairs, Construction and Investigations. | Band Concerts. | Totals. |
|---|---|---|---|---|---|---|---|---|
| Reservations: — | | | | | | | | |
| Blue Hills, | – | – | $93,874 08 | – | $12,083 91 | $3,895 09 | $1,532 95 | $111,386 03 |
| Beaver Brook, | – | – | 2,625 96 | – | – | – | 326 00 | 2,951 96 |
| Charles River, Upper Division, | – | – | 51,810 89 | – | 5,731 15 | 1,370 01 | 2,077 00 | 60,989 05 |
| Lynn Shore, | – | – | 9,594 60 | – | 756 68 | 12,468 27 | – | 22,062 87 |
| Middlesex Fells, | $50 00 | – | 64,920 69 | – | – | 208 66 | 4,361 32 | 70,297 35 |
| Mystic River, | – | – | 13,911 59 | – | – | – | – | 13,911 59 |
| Neponset River, | – | – | 3,190 07 | – | – | – | – | 3,190 07 |
| Quincy Shore, | – | – | 9,700 60 | – | – | – | – | 9,700 60 |
| Revere Beach, | – | – | 36,582 35 | – | 40,542 61 | 17,737 23 | 7,802 40 | 102,664 59 |
| Riverside Recreation Grounds, | – | – | 6,387 58 | – | 215 05 | – | 955 70 | 7,558 33 |
| Stony Brook, | – | – | 8,945 52 | – | 179 57 | – | – | 9,125 09 |
| Winthrop Shore, | – | – | 2,729 05 | – | – | – | – | 2,729 05 |
| Weston Bridge, | 10,968 32 | – | – | – | – | 10,000 00[1] | – | 20,968 32 |
| General expense, | – | – | 171,008 78 | – | – | 4,922 07[2] | 2 76 | 175,933 61 |
| Totals, | $11,018 32 | – | $475,281 76 | – | $59,508 97 | $50,601 33 | $17,058 13 | $613,468 51 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Parkways:** | | | | | | | | |
| Alewife Brook, | - | 6,768 31 | - | 18,168 76 | 903 11 | 3,000 00 | - | 28,840 18 |
| Blue Hills, | - | 13 00 | - | 10,509 13 | 67 12 | - | - | 10,589 25 |
| Dedham, | - | 847 92 | - | - | - | - | - | 847 92 |
| Fresh Pond, | - | 74 14 | - | 3,302 68 | - | - | - | 3,376 82 |
| Furnace Brook, | - | 7,656 75 | - | 11,472 42 | 28 50 | 102 50 | - | 19,260 17 |
| Hammond Pond, | - | 7,554 76 | - | 4,266 18 | 100 00 | - | - | 11,920 94 |
| Lynn Fells, | - | - | - | 6,672 32 | - | - | - | 6,672 32 |
| Lynnway, | - | - | - | 5,812 28 | - | - | - | 5,812 28 |
| Middlesex Fells, | - | - | - | 38,821 29 | 196 86 | 7 58 | - | 39,025 73 |
| Middlesex Fells Roads, | - | - | - | 18,645 22 | - | - | - | 18,645 22 |
| Mystic Valley, | - | 17,553 19 | - | 38,463 76 | 44 55 | 5,000 00 | - | 61,061 50 |
| Nahant Beach, | - | - | - | 7,474 78 | 9,174 57 | - | 1,505 00 | 18,154 35 |
| Neponset River, | - | - | - | 1,197 47 | - | - | - | 1,197 47 |
| Old Colony, | - | 62,068 50 | - | 98 70 | 15 00 | - | - | 62,182 20 |
| Quannapowitt, | - | 47 71 | - | - | - | - | - | 47 71 |
| Revere Beach, | - | - | - | 40,876 23 | 511 15 | - | - | 41,387 38 |
| West Street, Braintree, | - | 1,274 18 | - | - | - | - | - | 1,274 18 |
| West Roxbury, | - | - | - | 1,018 72 | - | - | - | 1,018 72 |
| Winthrop, | - | 9,344 85 | - | 797 71 | - | - | - | 10,142 56 |

[1] Metropolitan Parks Trust Fund. [2] Pensions.

*Summary of Expenditures for Year ending Nov. 30, 1917* — Concluded.

| | Metropolitan Parks Loan Fund. | Metropolitan Parks Loan Fund, Series II. | Metropolitan Parks System Maintenance. | Metropolitan Parks Boulevard Maintenance. | Metropolitan Parks Expense Fund. | Special Appropriations, Repairs, Construction and Investigations. | Band Concerts. | Totals. |
|---|---|---|---|---|---|---|---|---|
| Parkways — *Con.* | | | | | | | | |
| Woburn, | – | – | – | $8,129 42 | – | – | – | $8,129 42 |
| Neponset Bridge, | – | $23,989 87 | – | – | – | – | – | 23,989 87 |
| General expenses, | – | – | – | 98,800 57 | $3,920 53 | – | – | 102,721 10 |
| Totals, | – | $137,193 18 | – | $314,527 64 | $14,961 39 | $8,110 08 | $1,505 00 | $476,297 29 |
| Nantasket Beach Reservation, | – | – | – | – | 44,751 26 | 44,927 72[1] | 6,949 80 | 96,628 78 |
| Wellington Bridge, | – | 7,827 24 | – | – | – | 11,059 53[1] | – | 18,886 77 |
| Charles River Basin, | – | – | – | – | 3,843 88 | 16,707 88[2]<br>224 08<br>143,372 92[1] | 1,217 82 | 165,366 58 |
| North Beacon Street Bridge Loan, | – | – | – | – | – | 85,082 00 | – | 85,082 00 |
| Grand totals, | $11,018 32 | $145,020 42 | $475,281 76 | $314,527 64 | $123,065 50 | $330,085 54 | $26,730 75 | $1,455,729 93 |

[1] Maintenance. [2] Loan.

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